

BENTON HARBOR POWER PLANT LIMNOLOGICAL STUDIES

PART XIX: THE SEASONAL BIOLOGICAL SURVEYS OF 1971

John C. Ayers

Samuel C. Mozley

John A. Stewart

Under Contract with:

American Electric Power Service Corporation  
Indiana and Michigan Electric Company

Special Report No. 44  
of the  
Great Lakes Research Division  
The University of Michigan  
Ann Arbor, Michigan

December 1974



PREVIOUS PARTS OF THE REPORT SERIES RELATIVE TO THE  
DONALD C. COOK NUCLEAR STATION

Benton Harbor Power Plant Limnological Studies

Part

- I. General studies. J. C. Ayers and J. C. K. Huang. April 1967. 31 p.
- II. Studies of local winds and alongshore currents. J. C. Ayers, A. E. Strong, C. F. Powers, and R. Rossmann. December 1967. 45 p.
- III. Some effects of power plant waste heat on the ecology of Lake Michigan. J. R. Krezoski. June 1969. 78 p.
- IV. Cook Plant preoperational studies 1969. J. C. Ayers, R. F. Anderson, N. W. O'Hara, G. Kidd. March 1970. 92 p.
- V. Winter operations, March 1970. N. W. O'Hara, R. F. Anderson, W. L. Yocum, J. C. Ayers. April 1970. 17 p.
- VI. *Pontoporeia affinis* (Crustacea, Amphipoda) as a monitor of radionuclides released to Lake Michigan. C. C. Kidd. 1970. 71 p.
- VII. Cook Plant preoperational studies 1970. J. C. Ayers, D. E. Arnold, R. F. Anderson, H. K. Soo. March 1971. 72 and 13 p.
- VIII. Winter operations 1970-1971. J. C. Ayers, N. W. O'Hara, W. L. Yocum. June 1971. 41 p.
- IX. The biological survey of 10 July 1970. J. C. Ayers, W. L. Yocum, H. K. Soo, T. W. Bottrell, S. C. Mozley, L. C. Garcia. 1971. 72 p.
- X. Cook Plant preoperational studies 1971. J. C. Ayers, H. K. Soo, W. L. Yocum. August 1972. 140 and 12 p.
- XI. Winter operations 1971-1972. J. C. Ayers, W. L. Yocum. September 1972. 26 p.
- XII. Studies of the fish population near the Donald C. Cook Nuclear Power Plant, 1972. D. J. Jude, T. W. Bottrell, J. A. Dorr III, T. J. Miller. March 1973. 115 p.
- XIII. Cook Plant preoperational studies 1972. J. C. Ayers and E. Seibel (eds.). March 1973. 281 p.
- XIV. Winter operations 1972-1973. J. C. Ayers, W. L. Yocum, E. Seibel. May 1973. 22 p.
- XV. The biological survey of 12 November 1970. J. C. Ayers, S. C. Mozley, J. C. Roth. July 1973. 69 p.
- XVI. Psammolittoral investigation 1972. E. Seibel, J. C. Roth, J. A. Stewart, S. L. Williams. July 1973. 63 p.
- XVII. Program of aquatic studies related to the Donald C. Cook Nuclear Plant. J. C. Ayers and E. Seibel (eds.). December 1973. 57 p.



PREVIOUS REPORTS continued.

XVIII. Effect of a thermal discharge on benthos populations: Statistical methods for assessing the impact of the Cook Nuclear Plant. E. M. Johnston. December 1973. 20 p.

Seibel, E. and J. C. Ayers (eds.). 1974. The biological, chemical, and physical character of Lake Michigan in the vicinity of the Donald C. Cook Nuclear Plant. Special Report No. 51 of the Great Lakes Research Division, University of Michigan, Ann Arbor, Michigan. 475 p.



# TABLE OF CONTENTS

	Page
FIGURES . . . . .	vi
TABLES . . . . .	vii
INTRODUCTION . . . . .	1
<u>COOK PLANT PREOPERATIONAL STUDIES</u> . . . . .	5
A.2 STUDY OF FLOATING ALGAE AND BACTERIA . . . . .	5
THE THERMAL BAR IN THE COOK SURVEY AREA . . . . .	5
BACTERIA . . . . .	13
<i>Techniques</i> . . . . .	13
<i>Results</i> . . . . .	13
PHYTOPLANKTON . . . . .	15
<i>Techniques</i> . . . . .	15
<i>Results</i> . . . . .	15
<i>Summary Table</i> . . . . .	15
<i>Dominant and Codominant Phytoplankters</i> . . . . .	15
<i>Master Lists of Phytoplankters Collected</i>	
<i>During the Surveys</i> . . . . .	29
<i>Search for Riverine Species</i> . . . . .	38
A.5 STUDY OF ZOOPLANKTON . . . . .	38
METHODS . . . . .	38
RESULTS . . . . .	39
<i>The Survey of 15 April 1971</i> . . . . .	40
<i>The Survey of 9 July 1971</i> . . . . .	46
<i>The Survey of 2 September 1971</i> . . . . .	47
<i>The Survey of 8 November 1971</i> . . . . .	48
A.7 STUDY OF BENTHIC ORGANISMS . . . . .	49
METHODS . . . . .	51
RESULTS . . . . .	51
<i>New Species</i> . . . . .	51
<i>Variations in Zoobenthos with Depth and Season</i> . . . . .	52
<i>Size and Sex Frequencies in <u>Pontoporeia affinis</u></i> . . . . .	61
<i>Tubificidae Maturation</i> . . . . .	63
DISCUSSION . . . . .	64
REFERENCES . . . . .	66
APPENDIX A. PHYSICAL MEASUREMENTS . . . . .	68
APPENDIX B. PHYTOPLANKTON COLLECTIONS . . . . .	80
APPENDIX C. ZOOPLANKTON . . . . .	153
APPENDIX D. BENTHOS SURVEY . . . . .	163





## FIGURES

	Page
1. The Cook Plant sampling stations . . . . .	2
2. The position of the thermal bar (4°C) in the Cook survey grid on 15 April 1971 . . . . .	6
3. Phytoplankton, cells per 0.01 ml, at the stations of the 15 April 1971 Cook Plant survey . . . . .	8
4. Zooplankton, organisms per liter, at the stations of the 15 April 1971 Cook Plant survey . . . . .	9
5. Averaged abundances of phytoplankters (upper) and zooplankters (below) by half-degree temperature intervals, 15 April 1971 . . . . .	11
6. Averaged numbers of zooplankters per liter at different depth intervals in the Aprils of 1971, 1972, and 1973 under thermal bar, pre thermal bar, and post thermal bar conditions . . . . .	12
7. Mean numbers per m <sup>2</sup> of total animals (benthic macroinvertebrates excluding <i>Mysis relicta</i> ) by benthic depth zones and seasons . . . . .	53
8. Mean numbers per m <sup>2</sup> of minor Chironomidae by depth and season . . . . .	54
9. Mean numbers per m <sup>2</sup> of <i>Pontoporeia affinis</i> (PA) and <i>Stylodrilus heringianus</i> (SH) by depth and season . . . . .	55
10. Mean numbers per m <sup>2</sup> of <i>Pisidium</i> (PI) and Tubificidae (TU) by depth and season . . . . .	56
11. Mean numbers per m <sup>2</sup> of <i>Sphaerium nitidum</i> (SN) and <i>Sphaerium striatinum</i> (SS), which are sphaeriid clams, total Gastropoda (GA) (at least 3 species) and total Hirudinea (HI, at least 4 species) by depth and season . . . . .	57
12. Mean numbers per m <sup>2</sup> of large Chironomidae by depth and season . . . . .	58
13. Percentages of <i>Pontoporeia affinis</i> populations in size and season . . . . .	62



# TABLES

	Page
1. The sampling stations, their positions relative to the Cook Plant . . . . .	3
1A. Additional stations for phytoplankton only . . . . .	5
2. Total counts and coliform bacteria during 1971, bacteria /100 ml . . . . .	14
3. Phytoplankton Summary . . . . .	16
4. Dominant and codominant phytoplankters in the surveys of 1971 . . . . .	28
5. Master list of phytoplankton collected . . . . .	29
6. Number of phytoplankton species or groups, number of individuals per milliliter, and diversity indices of the 1971 station collections . . . . .	34
7. The common zooplankton Crustacea. . . . .	41
8. Zooplankton species counts (ind/m <sup>3</sup> ), coefficients of variation between duplicate subsamples, per- cent composition by species . . . . .	42
9. Numbers of observations on which the averages and standard errors in Figures 1-6 are based, by depth zone and month . . . . .	52
10. Average numbers of the more common Naididae by benthic zones in July and November 1971 with standard errors . . . . .	59
11. Percentages of Tubificidae which were mature in surveys of 1970 and 1971 . . . . .	64



## INTRODUCTION

In Part VII (March 1971) of our report series relative to the Donald C. Cook Nuclear Station, we established the following report format:

- A. COOK PLANT PREOPERATIONAL STUDIES
  - A.1 Recording of Local Water Temperatures
  - A.2 Study of Floating Algae and Bacteria
  - A.3 Development of a Monitor for Phytoplankton (ABANDONED)
  - A.4 Study of Attached Algae
  - A.5 Study of Zooplankton
  - A.6 Study of Aquatic Macrophytes
  - A.7 Study of Benthic Organisms
  - A.8 Study of the Local Fishes
  - A.9 Support of Aerial Scanning
  - A.10 Study of Entrainment and Impingement
- B. SURVEYS OF EXISTING WARM WATER PLUMES
- C. THE ICE BARRIER AT THE COOK PLANT SITE
- D. EFFECTS OF EXISTING THERMAL DISCHARGES ON LOCAL ICE BARRIERS
- E. EFFECTS OF RADIOACTIVE WASTES IN THE AQUATIC ENVIRONMENT
  - E.1 Gamma Scan of Bottom Sediments (FINISHED)
  - E.2 The Most Sensitive Organism for Concentration of Radwastes (FINISHED)
  - E.3 Study of Lake Michigan's Present Radioactivity Content (FINISHED)

This report covers only items A.2, A.5, and A.7 of the above format. These studies constitute four surveys of the large-scale set of biology stations related to the Donald C. Cook Plant carried out during 1971.

The layout of sampling stations, with indication of how the stations are numbered, is given in Figure 1. The sampling stations, their positions relative to the Cook Plant, their distances offshore, and the water depths encountered are given in Tables 1 and 1A.

The four biological surveys of 1971 were carried out on 15 April, 9 July, 2 September, and 8 November. Station DC-1 could not be occupied in July or September because of dredges working at the station position; in November the NDC-7 and SDC-7 stations were not visited because of high seas and severe cold.

Except for omissions pointed out above, phytoplankton samples were taken

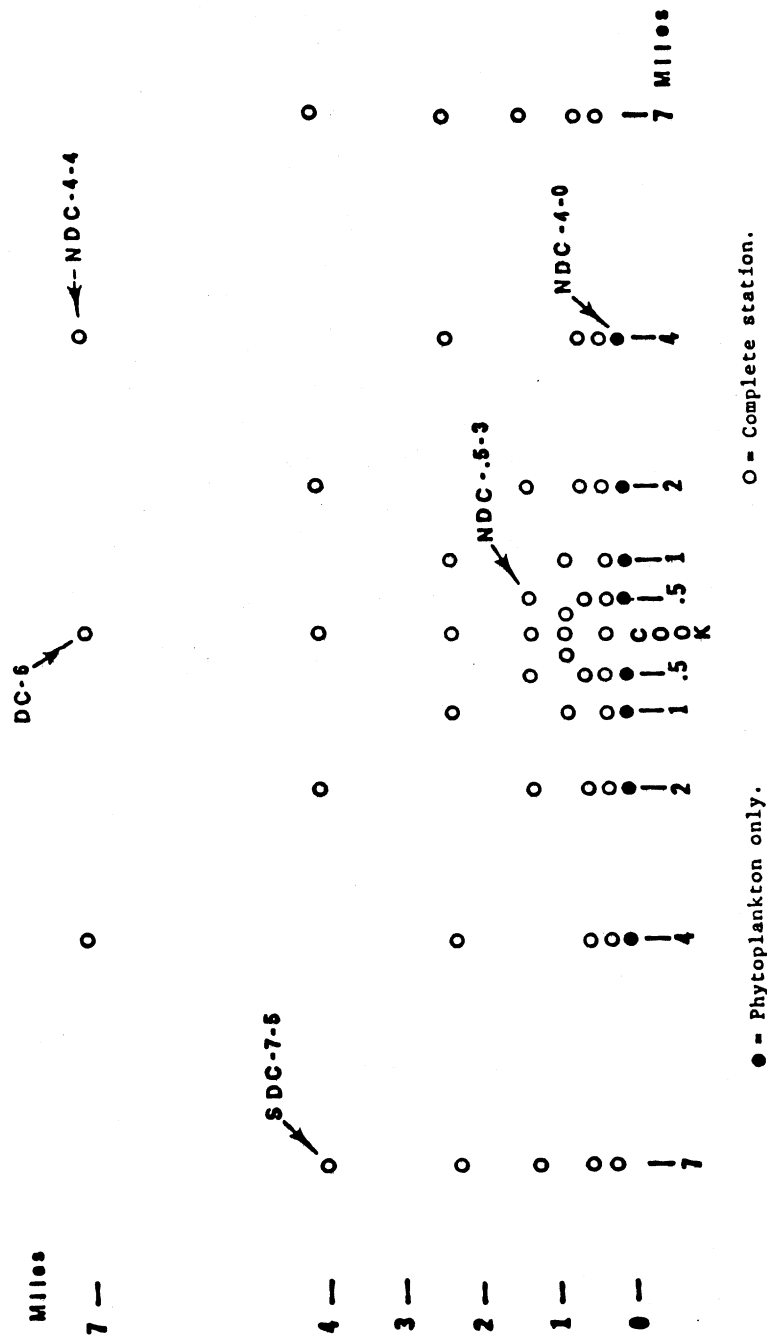


FIG. 1. The Cook Plant sampling stations. The stations are designated as follows: SDC stations are located south of the Donald Cook Plant, NDC stations are north of the plant, and the DC stations are directly offshore. The first number in the designation is the number of miles north or south of the plant. The second number is the serial number of the station. The serial number of the phytoplankton-only stations is 0.

at all the stations of Table 1. At all stations with serial numbers greater than zero, zooplankton, benthos, and physical measurements were collected as well. The physical measurements consisted of surface water temperature, water depth, bottom types, Secchi disc water transparency, and water color as seen above the white 20-cm Secchi disc, as well as weather conditions and wind and wave characteristics. The four sets of physical data are given in Appendix A.

TABLE 1. The sampling stations, their positions relative to the Cook Plant, their distances offshore, and the water depths encountered on 15 April 1971.

Station	Position relative to the Cook Plant				Water depth (ft)
DC-1	Directly off the plant, 1/4 mi offshore				20
DC-2	"	3/4	"		42
DC-3	"	1 1/4	"		57
DC-4	"	2 1/4	"		66
DC-5	"	4	"		80
DC-6	"	7	"		132
NDC-.25-1	1/4 mi north of the plant, 3/4 mi offshore				41
NDC-.5-1	1/2	"	1/4	"	12
NDC-.5-2	1/2	"	1/2	"	27
NDC-.5-3	1/2	"	1 1/4	"	57
NDC-1-1	1	"	1/4	"	16
NDC-1-2	1	"	3/4	"	41
NDC-1-3	1	"	2 1/4	"	57
NDC-2-1	2	"	1/4	"	16
NDC-2-2	2	"	1/2	"	25
NDC-2-3	2	"	1 1/4	"	53
NDC-2-4	2	"	4	"	84
NDC-4-1	4	"	1/4	"	10
NDC-4-2	4	"	1/2	"	19
NDC-4-3	4	"	2 1/4	"	61
NDC-4-4	4	"	7	"	154
NDC-7-1	7	"	1/4	"	21
NDC-7-2	7	"	1/2	"	26

TABLE 1 continued.

Station	Position relative to the Cook Plant				Water depth (ft)
NDC-7-3	7 mi north of the plant, 1 1/4 mi offshore				45
NDC-7-4	7	"	2 1/4	"	56
NDC-7-5	7	"	4	"	77
SDC-.25-1	1/4 mi south of the plant, 3/4 mi offshore				41
SDC-.5-1	1/2	"	1/4	"	17
SDC-.5-2	1/2	"	1/2	"	28
SDC-.5-3	1/2	"	1 1/4	"	55
SDC-1-1	1	"	1/4	"	15
SDC-1-2	1	"	3/4	"	23
SDC-1-3	1	"	2 1/4	"	66
SDC-2-1	2	"	1/4	"	14
SDC-2-2	2	"	1/2	"	28
SDC-2-3	2	"	1 1/4	"	53
SDC-2-4	2	"	4	"	76
SDC-4-1	4	"	1/4	"	19
SDC-4-2	4	"	1/2	"	28
SDC-4-3	4	"	2 1/4	"	61
SDC-4-4	4	"	7	"	105
SDC-7-1	7	"	1/4	"	15
SDC-7-2	7	"	1/2	"	28
SDC-7-3	7	"	1 1/4	"	52
SDC-7-4	7	"	2 1/4	"	55
SDC-7-5	7	"	4	"	71



TABLE 1A. Additional stations for phytoplankton only (all in 4 ft of water).

Station	Position relative to the Cook Plant		
NDC-.5-0	1/2 mi north of the plant, just off the beach		
NDC-1-0	1	"	"
NDC-2-0	2	"	"
NDC-4-0	4	"	"
SDC-.5-0	1/2 mi south of the plant, just off the beach		
SDC-1-0	1	"	"
SDC-2-0	2	"	"
SDC-4-0	4	"	"

#### COOK PLANT PREOPERATIONAL STUDIES

##### A.2 STUDY OF FLOATING ALGAE AND BACTERIA

###### THE THERMAL BAR IN THE COOK SURVEY AREA

During the survey of 15 April 1971 the thermal bar of southeastern Lake Michigan was present in the Cook Plant survey area and ran in a sinuous line from south to north at distances between two and four miles from the beach. The position of the bar as derived by linear interpolation between the station surface water temperatures is shown in Figure 2; it quite closely approximates the 18-m depth contour.

The data have been inspected for any evidences that convergence along the 4°C isothermal might be concentrating materials there. The evidence, if any, is slight and inconclusive. In comparisons of water color across the isotherm there were no significant color changes. Secchi disc transparencies lakeward of the bar were greater by 1.0 to 2.3 m, but this could possibly be a reflection of the smaller numbers of phytoplankton there.



In cases where comparison of phytoplankton numbers per milliliter could be made across the bar, the numbers were in all but two cases significantly smaller lakeward of the bar:

233 @ DC-4 (3.6°)	bar	456 @ DC-3 (6.9°)
174 @ NDC-2-4 (2.9°)	"	91 @ NDC-2-3 (4-7°)
191 @ NDC-4-4 (2.2°)	"	314 @ NDC-4-3 (4.9°)
171 @ NDC-7-5 (3.4°)	"	429 @ NDC-7-4 (5.1°)
268 @ SDC-1-3 (3.7°)	"	600 @ SDC-1-2 (7.3°)
219 @ SDC-2-4 (3.2°)	"	326 @ SDC-2-3 (5.9°)
23 @ SDC-4-4 (2.5°)	"	196 @ SDC-4-3 (5.1°)
177 @ SDC-7-5 (3.8°)	"	180 @ SDC-7-4 (5.6°)

Where comparisons of total numbers of zooplankton (without nauplii) per cubic meter across the bar could be made, there were in six cases of nine significantly more zooplankters lakeward of the bar:

6,347 @ DC-4	bar	1,568 @ DC-3
6,549 @ NDC-1-3	"	1,282 @ NDC-1-2
6,850 @ NDC-2-4	"	1,830 @ NDC-2-3
3,666 @ NDC-4-4	"	7,259 @ NDC-4-3
8,765 @ NDC-7-5	"	2,618 @ NDC-7-4
16,710 @ SDC-1-3	"	885 @ SDC-1-2
8,971 @ SDC-2-4	"	4,949 @ SDC-2-3
5,718 @ SDC-4-4	"	13,148 @ SDC-4-3
1,915 @ SDC-7-5	"	4,850 @ SDC-7-4

In waters landward of the thermal bar there were very substantially larger numbers of copepod nauplii than lakeward of the bar:

DC-2 (landward of the bar)	3,516 nauplii per m <sup>3</sup>
DC-5 (lakeward of the bar)	401 " " "
DC-6 ( " " " " )	583 " " "

The higher numbers of nauplii are attributed only to the warmer waters inshore which were permitting the beginning of copepod reproduction which had not yet begun in the colder waters outside the bar.

Figure 3 presents the numbers of phytoplankters found at the stations of the survey; in order that the numbers at each station may be gotten onto the available space of the figure, the population numbers are given as numbers per 0.01 ml.

In Figure 3, the picture presented by the data is merely one of a dominant tendency for a decrease in numbers as one goes lakeward from the shore.

On the other hand, the zooplankters (Fig. 4) in their horizontal distribution show some accumulation of numbers near the 4°C isotherm. Both phytoplankton and zooplankton show their natural patchiness to some extent in the horizontal distributions. To try to separate the effects of patchiness of

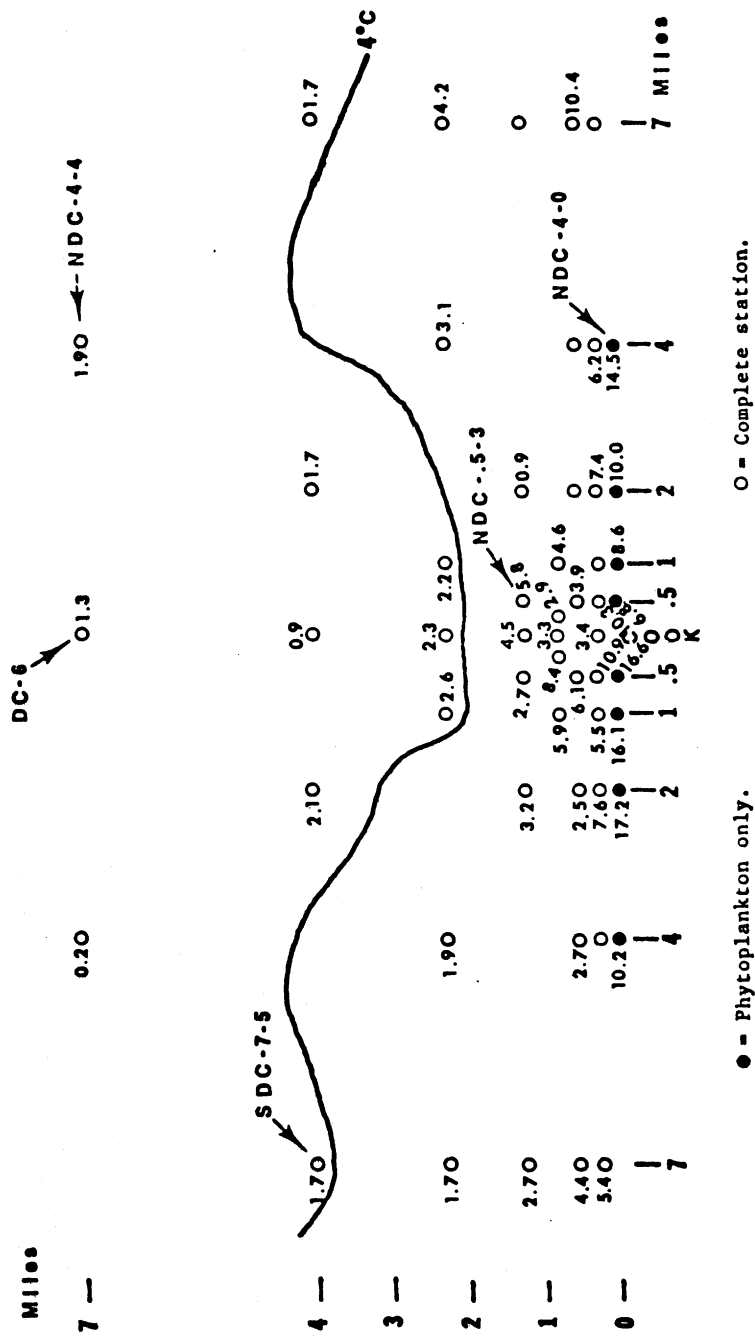


FIG. 3. Phytoplankton, cells per 0.01 ml, at the stations of the 15 April 1971 Cook Plant survey. The thermal bar (4°C) runs approximately along the 18-m depth contour.

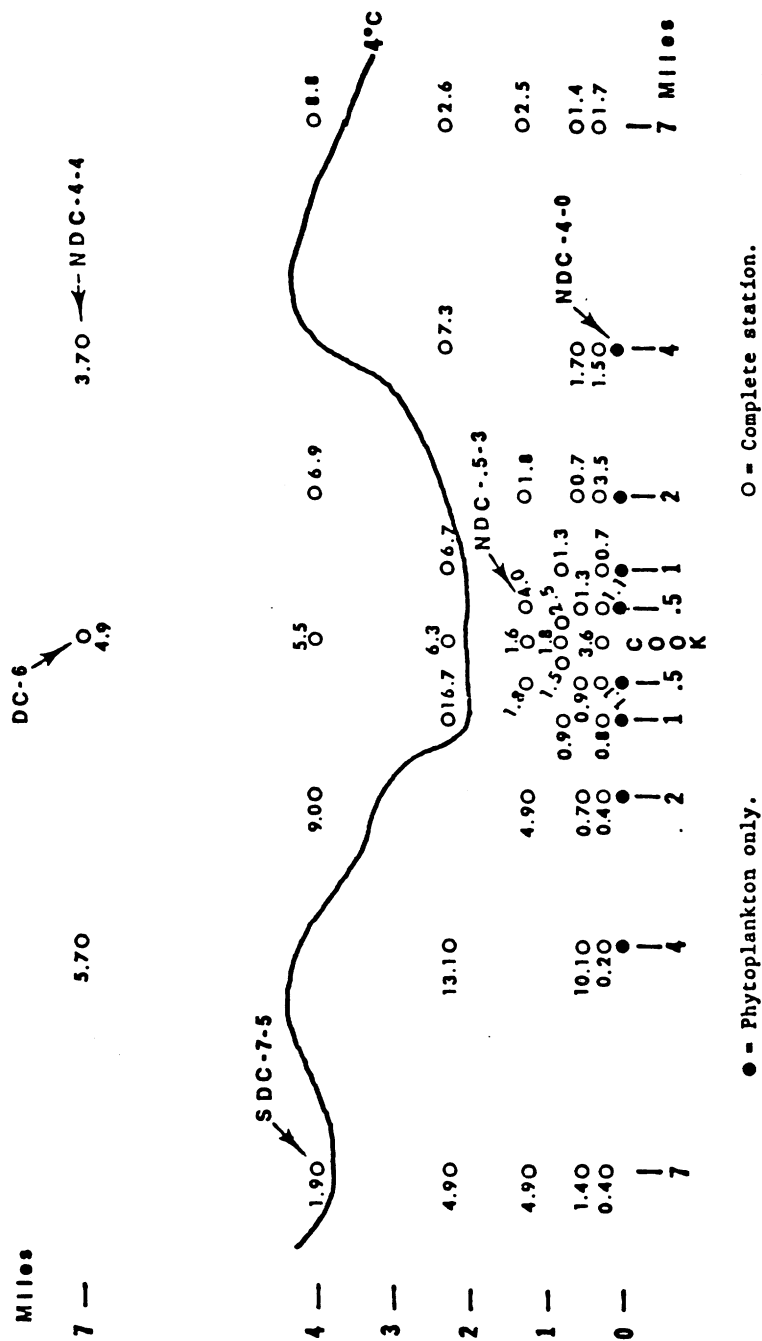


FIG. 4. Zooplankton, organisms per liter, at the stations of the 15 April 1971 Cook Plant survey. The thermal bar ( $4^{\circ}\text{C}$ ) runs approximately along the 18-m depth contour.

distribution from the possible effects of temperature, we have made histograms (Fig. 5) of averaged numbers of phytoplankters and zooplankters by half-degree increments of station temperatures across the survey area.

In Figure 5, with one or more stations in each half-degree temperature increment, the numbers of phytoplankters per milliliter at the stations in the several temperature ranges indicate only that there were more phytoplankters in the warmer waters near shore. There is no evidence in the histograms that the thermal bar was causing any convergent concentration of phytoplankters at the 4°C isotherm. There is, instead, evidence that the low offshore numbers were the normal overwintering population, while the progressive increase in numbers toward shore (with the largest numbers in the warmest water) represents phytoplankters responding to the spring warming by reproduction.

The zooplankton, however, showed highest averaged numbers in the temperature increment from 3.5 to 4°C and much less concentration in the increments from 4.5 to 7.5°C (average 7.9 organisms per liter in the interval between 3.5 and 4.0° as opposed to 3.5 and 4.7 per liter in the two intervals between 4.5 and 5.5°C). The shape of the histogram suggests that the abundant offshore zooplankters were probably the normal winter pre-spawning population, while the reduced numbers found inshore of the bar probably were the unspawned adults remaining after the warmer water there had stimulated many to spawn and die. This view is consistent with the presence in this water of greatly larger numbers of copepod young (nauplii).

Figure 6 is an intercomparison of averaged zooplankton abundances at 5-m depth intervals during the surveys of April 1971 (with a thermal bar), April 1972 (before the thermal bar had developed), and April 1973 (after the thermal bar had passed). During thermal bar and post thermal bar conditions, the greatest averaged numbers of zooplankton were found lakeward of the 18-m depth contour. In the case of the April 1971 thermal bar, the numbers of zooplankters at the 18-m depth contour position of the bar were not significantly greater than during pre and post bar conditions. If convergence and sinking were taking place at the bar, one would expect the upward-swimming zooplankters to be concentrated along the bar by the convergence of water movements. Neither Figure 5 nor Figure 6 exhibit any clear evidence of zooplankton concentration at the thermal bar; if convergence concentration of zooplankters was indeed going on it was being masked by some other factor, possibly the

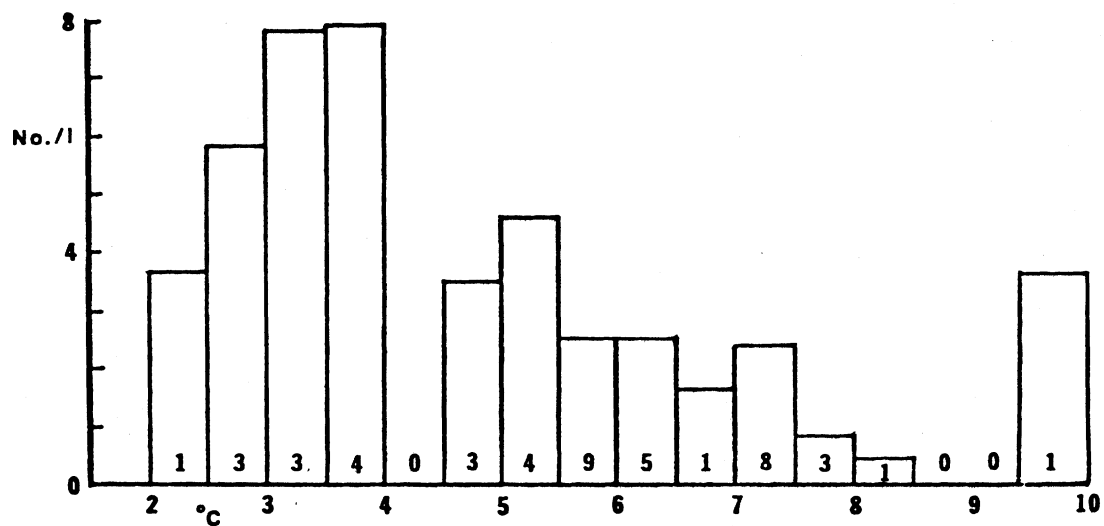
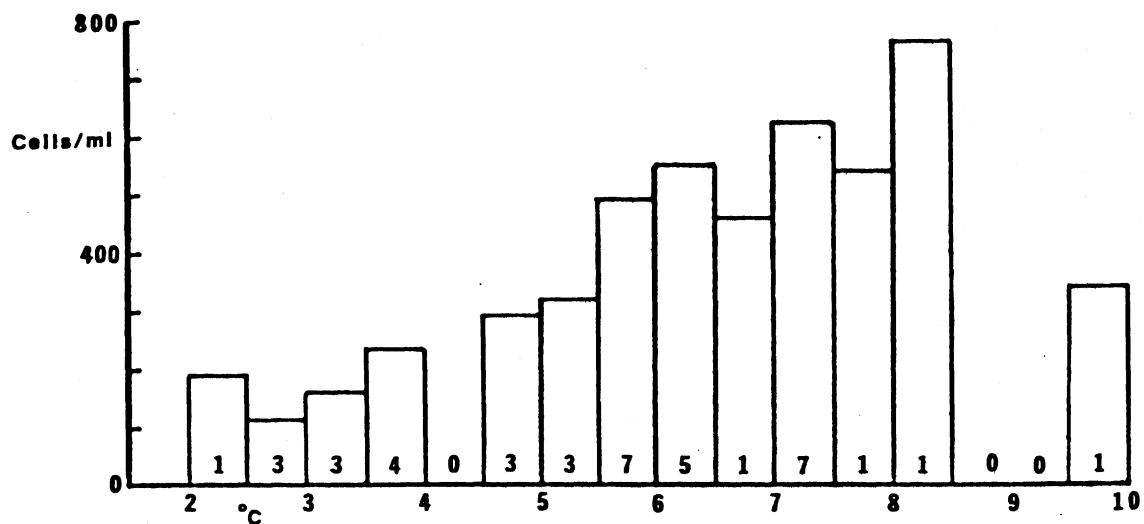


FIG. 5. Averaged abundances of phytoplankters (upper) and zooplankters (below) by half-degree temperature intervals, 15 April 1971. Numbers within the bars indicate the numbers of samples averaged.

- April 1971, with thermal bar
- ★ April 1972, pre thermal bar
- April 1973, post thermal bar

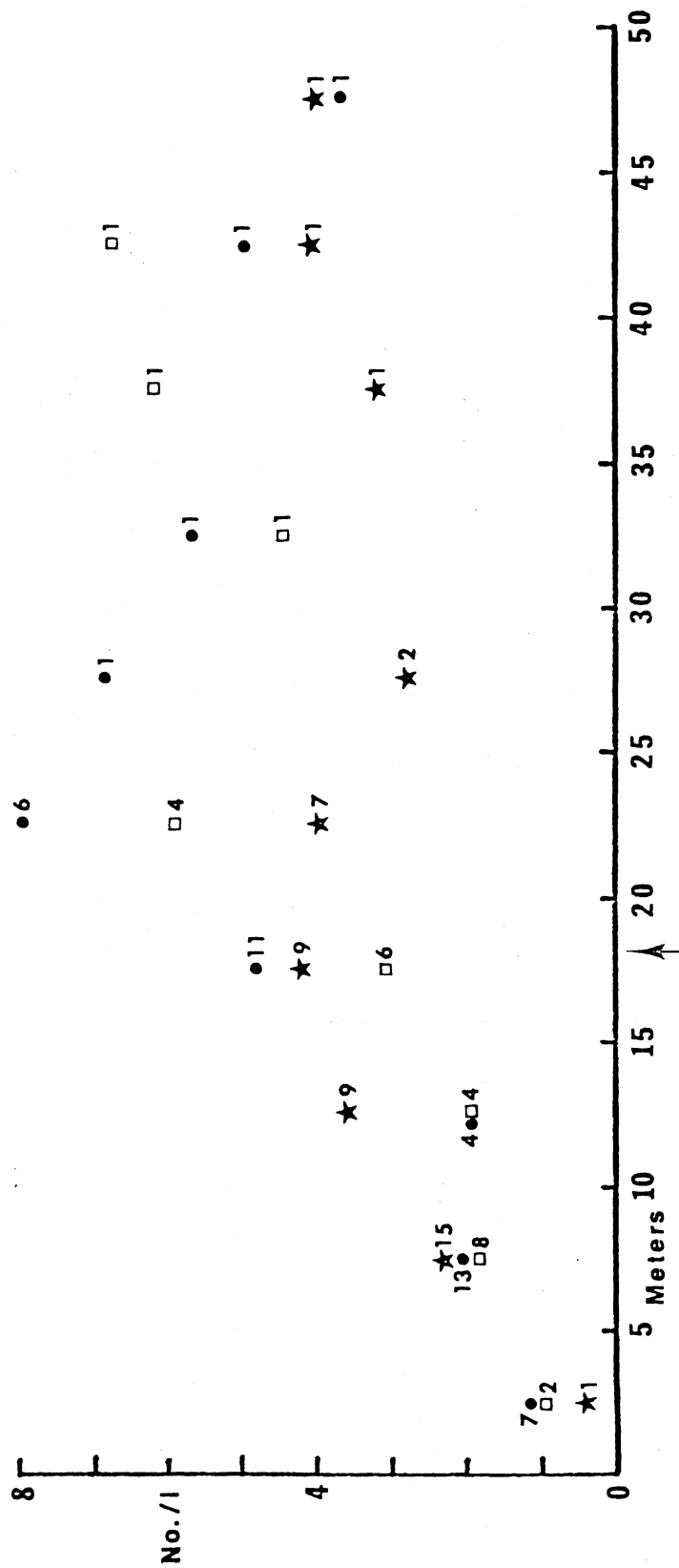


FIG. 6. Averaged numbers of zooplankters per liter at different depth intervals in the Aprils of 1971, 1972, and 1973 under thermal bar, pre thermal bar, and post thermal bar conditions. Numbers beside the points indicate the numbers of samples averaged. Arrow indicates the 18-m depth contour.



effects of temperature as mentioned above.

If convergence concentration were going on one would expect it to be shown by higher numbers of phytoplankton along the bar. Figure 5 does not exhibit such concentration; again, if it was going on it was being masked, probably by the effects of temperature as mentioned above.

## BACTERIA

### *Techniques*

Total bacteria and coliform bacteria were determined by the nutrient pad method using the Millipore Portable Water Analysis Kit and Field Monitors. The Analysis Kit provides a pump and an incubator; the Field Monitors are ready-to-use sterile nutrient pads and filters in incubating dishes and come with ampouled nutrient media. M-TGE Broth was used for total counts, and M-Endo Broth for coliforms. Water samples ranging from 16 to 30 ml were pumped through the Field Monitors. Water from 1-m depth was collected by Nansen bottle and immediately drawn off into sterile plastic bottles for refrigeration until the Field Monitors could be prepared. Because of limited space in the incubator, bacteria were not run at all stations.

Station DC-1 was not sampled for bacteria in April, July, or September. It was accidentally omitted in April, and in July and September the station position was occupied by dredges.

Counts of total bacteria were not made after April because of the extreme degree of subjectivity inherent in making the counts from the incubated plates.

### *Results*

The bacteria results are given in Table 2. The counts of total bacteria for April are presented but are considered to be unreliable.

The numbers of coliforms exhibited great variation both spatially and temporally. Numbers of coliforms rose from April through July and became extremely high in September before falling to very low levels in November. In 1971 Labor Day fell on 6 September, and the high numbers of coliforms found on 2 September are tentatively associated by us with the peak of summer usage of the lake and lakeshore property. We tentatively attribute the low

numbers present on 8 November to reduction of human input to far below summer levels, and to the cold water of fall.

TABLE 2. Total counts and coliform bacteria during 1971, bacteria/100 ml.

Station	Total count	Coliforms	Station	Total count	Coliforms
15 APRIL 1971			DC-6	--	248
DC-2	328	0	NDC-.5-1	--	8,060
NDC-.5-1	348	74	NDC-.5-2	--	4,090
SDC-.5-2	355	0	NDC-1-2	--	1,990
NDC-1-2	350	0	NDC-2-3	--	4,315
NDC-2-3	200	0	NDC-4-1	--	3,965
NDC-4-1	612	132	NDC-4-3	--	2,550
9 JULY 1971			NDC-7-1	--	133
DC-2	--	41	NDC-7-3	--	200
DC-3	--	84	NDC-7-5	--	1,740
DC-4	--	31	SDC-.5-1	--	3,135
DC-5	--	76	SDC-.5-2	--	3,770
DC-6	--	5	SDC-1-2	--	3,475
NDC-.5-1	--	472	SDC-2-3	--	3,304
NDC-.5-2	--	205	SDC-4-1	--	2,553
NDC-1-2	--	10	SDC-4-3	--	3,485
NDC-2-3	--	12	SDC-7-1	--	1,683
NDC-4-1	--	331	SDC-7-3	--	1,539
NDC-4-3	--	200	SDC-7-5	--	200
NDC-7-1	--	250	8 NOVEMBER 1971		
NDC-7-3	--	1,005	DC-1	--	9
NDC-7-5	--	142	DC-2	--	0
SDC-.5-1	--	2,965	DC-3	--	1
SDC-.5-2	--	322	DC-4	--	1
SDC-1-2	--	61	DC-5	--	0
SDC-2-3	--	0	DC-6	--	0
SDC-4-1	--	670	NDC-.5-1	--	12
SDC-4-3	--	60	NDC-.5-2	--	22
SDC-7-1	--	68	NDC-1-2	--	0
SDC-7-3	--	122	NDC-2-3	--	1
SDC-7-5	--	131	NDC-4-1	--	6
2 SEPTEMBER 1971			NDC-4-3	--	1
DC-2	--	3,130	SDC-.5-1	--	0
DC-3	--	590	SDC-.5-2	--	2
DC-4	--	3,240	SDC-1-2	--	3
DC-5	--	643	SDC-2-3	broken	
			SDC-4-1	--	10
			SDC-4-3	--	7

## PHYTOPLANKTON

### *Techniques*

Phytoplankton samples were collected by Nansen bottle at a depth of 1 m, with the exception of the nearshore stations. Nearshore collections (serial number zero stations) were made by submerging an open 1-liter bottle 4 inches below the water surface. All samples were 1-liter whole samples. Each sample was fixed with Utermohl's iodine fixative immediately after collection and stored in an opaque container.

In the laboratory, each sample was concentrated to 100 ml by settling in a 1000-ml graduate cylinder and siphoning off 900 ml of fluid. The concentrated sample was stored in a 100-ml opaque bottle.

Samples were prepared for counting by placing an aliquot of the concentrated sample in a tubular combination settling and counting chamber and allowing the aliquot to settle overnight. The counting chamber containing the settled cells was then separated from the settling chamber, covered, and placed on the microscope. The samples were counted on a binocular inverted microscope at 1000x magnification.

Solitary species, green and blue-green algae colonies, and the filaments of filamentous forms were each counted as one cell. Each colonial diatom cell was counted except when the size of the filaments or colonies prohibited counting the individual cells; in this case, the number of individual cells was estimated.

### *Results*

*Summary Table.* The phytoplankton summary which follows (Table 3) is based on the one used by the Michigan Water Resources Commission in reporting their phytoplankton collections. Our summaries differ only in that we have counted or estimated the cells in filamentous and colonial diatoms, while the Commission counts a filament or colony as a single organism. The station by-station phytoplankton records constitute Appendix B.

*Dominant and Codominant Phytoplankters.* In each phytoplankton sample, one species or group typically was present in substantially greater numbers. We have called these species or groups "dominant." In many stations one, two or three additional species or groups challenged the numerical superiority of

TABLE 3. Phytoplankton Summary. Units: Cells Per Milliliter; Surface Temperature, C°; ND = Not Determined.

Station	Temperature	Coccolith blue-green	Filamentous green	Blue-green	Coccolith green	Filamentous green	Flagellate	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
15 APRIL 1971													
DC-1	9.5	0	6	7	6	105	118	93	0	0	7	342	<i>Chlamydomonas</i> sp. <i>Tabellaria fenestrata</i>
DC-2	5.3	0	10	4	0	91	119	96	1	1	14	335	<i>Melosira</i> sp. <i>Chlamydomonas</i> sp. <i>Tabellaria fenestrata</i>
DC-3	6.9	0	7	1	0	213	163	66	0	0	5	455	<i>Chlamydomonas</i> sp.
DC-4	3.6	1	4	10	0	75	81	41	1	1	20	233	<i>Ochromonas</i> sp. <i>Melosira</i> sp.
DC-5	3.3	0	3	2	0	54	19	7	1	1	5	91	<i>Ochromonas</i> sp.
DC-6	2.6	0	2	4	0	104	9	8	0	0	6	133	<i>Ochromonas</i> sp. <i>Chlamydomonas</i> sp.
NDG-.25-1	5.5	1	10	6	0	99	100	75	0	0	5	296	<i>Melosira</i> sp. <i>Ochromonas</i> sp. <i>Tabellaria fenestrata</i>
NDC-.5-0	ND	0	7	14	0	239	304	67	0	0	56	687	<i>Stephanodiscus</i> sp. <i>Chlamydomonas</i> sp.
NDC-.5-1	6.3	2	15	11	0	412	341	245	0	0	11	1,037	<i>Ochromonas</i> sp. <i>Chlamydomonas</i> sp. <i>Tabellaria fenestrata</i>
NDC-.5-2	5.5	0	4	4	1	106	169	107	0	0	4	395	<i>Tabellaria fenestrata</i>
NDC-.5-3	6.1	1	3	9	0	198	274	91	1	1	9	586	<i>Stephanodiscus</i> sp.
NDC-1-0	ND	0	0	11	4	252	449	115	0	0	30	861	<i>Stephanodiscus</i> sp.
NDC-1-1	5.8	.....	.....	.....	.....	missing	.....	.....	.....	.....	.....	.....	.....
NDC-1-2	4.9	1	5	4	0	181	141	123	0	0	10	465	<i>Ochromonas</i> sp. <i>Tabellaria fenestrata</i>
NDC-1-3	3.8	0	4	3	0	84	86	45	1	1	6	229	<i>Ochromonas</i> sp.
NDC-2-0	ND	0	11	70	0	382	308	152	0	0	78	1,001	<i>Chlamydomonas</i> sp. <i>Stephanodiscus</i> sp.
NDC-2-1	5.6	0	7	2	4	312	216	182	1	1	18	742	<i>Chlamydomonas</i> sp.
NDC-2-2	5.1	.....	.....	.....	.....	missing	.....	.....	.....	.....	.....	.....	.....

TABLE 3 continued.

Station	Temperature	Coccolid blue-green	Filamentous green	Coccolid blue-green	Filamentous green	Flagellate	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
15 APRIL 1971 cont.												
NDC-2-3	4.7	0	3	1	0	15	41	24	0	4	88	<i>Melosira</i> sp. <i>Tabellaria fenestrata</i>
NDC-2-4	2.9	0	1	5	0	96	45	17	0	11	175	<i>Ochromonas</i> sp. <i>Melosira</i> sp.
NDC-4-0	ND	0	26	15	7	245	913	174	4	67	1,451	<i>Cyclotella</i> sp. <i>Stephanodiscus</i> sp.
NDC-4-1	7.0	0	11	20	0	43	397	111	2	39	623	<i>Stephanodiscus</i> sp.
NDC-4-2	7.0	.....	.....	.....	.....	missing	.....	.....	.....	.....	.....	.....
NDC-4-3	4.9	1	7	6	0	131	106	45	1	16	313	<i>Ochromonas</i> sp. <i>Melosira</i> sp. <i>Chlamydomonas</i> sp.
NDC-4-4	2.2	0	0	2	0	128	45	7	2	6	190	<i>Chlamydomonas</i> sp.
NDC-7-1	7.5	.....	.....	.....	.....	missing	.....	.....	.....	.....	.....	.....
NDC-7-2	7.3	7	14	20	0	342	451	184	1	21	1,040	<i>Chlamydomonas</i> sp. <i>Cyclotella</i> sp.
NDC-7-3	5.7	.....	.....	.....	.....	missing	.....	.....	.....	.....	.....	.....
NDC-7-4	5.1	0	2	6	0	197	117	86	1	19	428	<i>Ochromonas</i> sp. <i>Chlamydomonas</i> sp.
NDC-7-5	3.4	0	5	1	0	66	51	43	1	4	171	<i>Tabellaria fenestrata</i> <i>Ochromonas</i> sp.
SDC-.25-1	5.8	0	9	32	0	255	326	189	4	30	845	<i>Fragilaria crotonensis</i> <i>Melosira</i> sp. <i>Chlamydomonas</i> sp. <i>Ochromonas</i> sp.
SDC-.5-0	ND	0	41	45	0	360	846	349	0	22	1,663	<i>Stephanodiscus</i> sp.
SDC-.5-1	7.3	7	7	37	0	391	306	326	2	19	1,095	<i>Ochromonas</i> sp. <i>Chlamydomonas</i> sp. <i>Fragilaria crotonensis</i>
SDC-.5-2	5.7	1	3	16	0	164	168	245	0	21	618	<i>Fragilaria crotonensis</i>
SDC-.5-3	6.1	1	4	4	0	59	121	82	0	5	276	<i>Melosira</i> sp.

TABLE 3 continued.

Station	Temperature	Coccol- blue- green	Fila- mentous green	Coccol- blue- green	Fila- mentous green	Flagel- lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total	Dominant species
<i>15 APRIL 1971 cont.</i>												
SDC-1-0	ND	4	48	93	4	430	694	263	4	74	1,614	<i>Stephanodiscus</i> sp. <i>Cyclotella</i> sp. <i>Chlamydomonas</i> sp.
SDC-1-1	6.3	2	6	13	0	133	221	171	1	9	556	<i>Tabellaria fenestrata</i> <i>Melosira</i> sp. <i>Fragilaria crotonensis</i>
SDC-1-2	7.3	3	9	7	0	181	162	225	2	10	599	<i>Fragilaria</i> sp. <i>Ochromonas</i> sp.
SDC-1-3	3.7	0	6	9	0	100	74	60	1	16	266	<i>Ochromonas</i> sp. <i>Fragilaria crotonensis</i>
SDC-2-0	ND	0	7	41	4	571	679	404	11	11	1,728	<i>Cyclotella</i> sp. <i>Ochromonas</i> sp. <i>Stephanodiscus</i> sp.
SDC-2-1	8.1	0	7	9	0	228	352	147	0	20	763	<i>Stephanodiscus</i> sp.
SDC-2-2	7.1	6	13	17	3	91	41	68	0	17	256	<i>Ochromonas</i> sp. <i>Tabellaria fenestrata</i>
SDC-2-3	5.9	1	6	6	0	85	135	86	0	6	325	<i>Cyclotella</i> sp. <i>Fragilaria crotonensis</i> <i>Melosira</i> sp.
SDC-2-4	3.2	0	4	7	0	97	48	50	3	9	218	<i>Ochromonas</i> sp. <i>Melosira</i> sp. <i>Fragilaria crotonensis</i>
SDC-4-0	ND	0	7	56	0	382	286	263	0	33	1,027	<i>Ochromonas</i> sp.
SDC-4-1	7.8.....					missing.....						
SDC-4-2	7.1	0	6	8	0	31	103	119	0	8	275	<i>Fragilaria crotonensis</i> <i>Tabellaria fenestrata</i> <i>Melosira</i> sp.
SDC-4-3	5.1	0	4	4	0	63	73	44	0	8	196	<i>Melosira</i> sp. <i>Ochromonas</i> sp. <i>Tabellaria fenestrata</i>
SDC-4-4	2.5	0	0	0	0	14	3	4	0	1	22	<i>Ochromonas</i> sp.

TABLE 3 continued.

Station	Temperature	Coccolid blue-green	Filamentous green	Coccolid green	Filamentous green	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
<b>15 APRIL 1971 cont.</b>												
SDC-7-1	7.5	2	6	9	0	109	244	157	0	16	543	<i>Stephanodiscus</i> sp.
SDC-7-2	7.1	1	10	7	0	139	190	94	1	7	449	<i>Stephanodiscus</i> sp.
SDC-7-3	6.3	1	6	3	0	85	101	73	0	4	273	<i>Stephanodiscus</i> sp. <i>Tabellaria fenestrata</i> <i>Ochromonas</i> sp.
SDC-7-4	5.6	0	7	3	1	47	64	51	0	6	179	<i>Melosira</i> sp. <i>Tabellaria fenestrata</i> <i>Ochromonas</i> sp.
SDC-7-5	3.8	1	4	9	0	70	65	23	0	6	178	<i>Melosira</i> sp. <i>Ochromonas</i> sp.
<b>9 JULY 1971</b>												
DC-2	22.9	0	24	156	5	51	14	9	4	42	305	<i>Gloeocystis</i> sp.
DC-3	22.8	0	6	95	0	52	3	1	6	13	176	<i>Gloeocystis</i> sp.
DC-4	21.1	0	20	271	7	157	41	17	3	135	651	<i>Gloeocystis</i> sp.
DC-5	21.2	0	12	405	8	49	19	5	2	60	560	<i>Gloeocystis</i> sp.
DC-6	21.0	0	9	72	0	53	2	0	1	4	141	<i>Gloeocystis</i> sp. <i>Dinobryon divergens</i>
NDC-.25-1	22.9	0	13	175	6	49	20	9	4	24	300	<i>Gloeocystis</i> sp.
NDC-.5-0	ND	0	13	301	7	108	43	143	7	95	717	<i>Gloeocystis</i> sp.
NDC-.5-1	23.0	0	9	172	5	38	19	27	5	40	315	<i>Gloeocystis</i> sp.
NDC-.5-2	23.0	0	6	149	4	43	15	18	2	44	281	<i>Gloeocystis</i> sp.
NDC-.5-3	22.4	0	6	52	0	34	2	9	4	18	125	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp. <i>Glenodinium</i> sp. <i>Dinobryon divergens</i>
NDC-1-0	ND	2	9	217	9	69	39	83	6	70	504	<i>Gloeocystis</i> sp.
NDC-1-1	23.0	0	18	304	7	116	49	28	13	86	621	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp.

TABLE 3 continued.

Station	Temperature	Coccold blue-green	Filamentous blue-green	Coccold green	Filamentous green	Flagellate green	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total	Dominant species
9 JULY 1971 cont.												
NDC-1-2	22.9	0	9	130	4	53	13	13	2	41	265	<i>Gloeocystis</i> sp.
NDC-1-3	21.4	0	1	46	0	38	4	0	1	7	97	<i>Gloeocystis</i> sp. <i>Dinobryon divergens</i> <i>Oocystis</i> sp.
NDC-2-0	ND	0	11	652	8	71	20	59	4	86	911	<i>Gloeocystis</i> sp.
NDC-2-1	22.8	0	6	206	2	45	17	15	3	50	344	<i>Gloeocystis</i> sp.
NDC-2-2	22.8	0	9	162	4	41	15	58	2	37	328	<i>Gloeocystis</i> sp.
NDC-2-3	22.8	0	6	21	1	35	6	23	2	17	111	<i>Fragilaria crotonensis</i> <i>Oocystis</i> sp. <i>Dinobryon divergens</i>
NDC-2-4	20.5	0	11	201	3	70	22	6	0	36	349	<i>Gloeocystis</i> sp.
NDC-4-0	ND	0	9	153	8	43	18	45	2	48	326	<i>Gloeocystis</i> sp.
NDC-4-1	22.8	1	10	227	6	63	29	46	2	58	442	<i>Gloeocystis</i> sp.
NDC-4-2	22.8	0	8	176	4	37	26	10	3	52	316	<i>Gloeocystis</i> sp.
NDC-4-3	22.8	0	9	104	2	70	13	4	2	39	243	<i>Gloeocystis</i> sp. <i>Dinobryon divergens</i>
NDC-4-4	20.5	0	4	26	0	31	3	0	0	8	72	<i>Gloeocystis</i> sp. <i>Dinobryon divergens</i>
NDC-7-1	23.0	1	17	951	23	96	104	38	2	380	1612	<i>Gloeocystis</i> sp.
NDC-7-2	22.8	0	11	256	2	59	50	25	3	131	537	<i>Gloeocystis</i> sp.
NDC-7-3	23.0	0	12	980	12	95	85	19	4	230	1437	<i>Gloeocystis</i> sp.
NDC-7-4	23.0	0	11	76	4	53	26	9	1	32	212	<i>Gloeocystis</i> sp. <i>Cyclotella</i> sp. <i>Dinobryon divergens</i>
NDC-7-5	22.1	0	6	173	4	86	9	1	0	40	319	<i>Gloeocystis</i> sp.
SDC-25-1	23.0	0	14	92	4	47	18	13	3	27	218	<i>Gloeocystis</i> sp.



TABLE 3 continued.

Station	Temperature	Coccol- blue- green	Filamentous blue-green	Coccol- green	Fila- mentous green	Flagel- lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total	Dominant species
9 JULY 1971 cont.												
SDC-5-0	ND	0	3	28	2	22	9	16	0	19	99	<i>Gloeocystis</i> sp. <i>Glenodinium</i> sp. <i>Tabellaria fenestrata</i> <i>Scenedesmus</i> sp.
SDC-5-1	23.0	0	9	126	7	67	11	45	4	37	306	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp. <i>Tabellaria fenestrata</i>
SDC-5-2	22.9	0	6	139	2	49	25	11	5	40	277	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp.
SDC-5-3	23.0	0	7	50	0	45	6	12	2	11	133	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp. <i>Glenodinium</i> sp.
SDC-1-0	ND	0	10	125	10	134	50	119	5	70	523	<i>Gloeocystis</i> sp. <i>Glenodinium</i> sp. <i>Tabellaria fenestrata</i>
SDC-1-1	22.9	0	3	40	2	26	13	9	3	10	106	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp. <i>Cyclotella</i> sp.
SDC-1-2	23.0	0	15	100	7	45	19	14	3	33	236	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp.
SDC-1-3	22.4	0	7	29	0	32	1	0	0	10	79	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp. <i>Dinobryon divergens</i>
SDC-2-0	ND	33	19	121	11	163	43	239	11	145	785	<i>Fragilaria crotonensis</i> <i>Glenodinium</i> sp. <i>Tabellaria fenestrata</i> <i>Crucigenia</i> sp.
SDC-2-1	22.6	0	7	83	6	43	23	13	7	26	208	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp. <i>Cyclotella</i> sp.
SDC-2-2	22.8	0	8	100	4	45	26	18	6	39	246	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp.

TABLE 3 continued.

Station	Tem- pera- ture	Coccol- blue- green	Filamentous blue-green	Coccol- green	Fila- mentous green	Flagel- lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total	Dominant species
9 JULY 1971 cont. SDC-2-3	ND	0	21	122	6	51	33	9	3	39	284	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp. <i>Cyclotella</i> sp.
SDC-2-4	22.0	0	5	31	0	30	2	4	1	13	86	<i>Gloeocystis</i> sp. <i>Dinobryon divergens</i>
SDC-4-0	ND	0	21	48	5	92	35	142	5	65	413	<i>Tabellaria fenestrata</i> <i>Glenodinium</i> sp. <i>Fragilaria</i> sp.
SDC-4-1	22.7	0	6	63	9	74	13	31	6	29	231	<i>Gloeocystis</i> sp. <i>Glenodinium</i> sp. <i>Tabellaria fenestrata</i>
SDC-4-2	22.8	0	6	50	6	52	17	13	6	21	171	<i>Gloeocystis</i> sp. <i>Glenodinium</i> sp. <i>Oocystis</i> sp.
SDC-4-3	22.9	0	21	122	3	52	19	13	2	25	257	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp.
SDC-4-4	22.1	0	1	30	0	34	3	0	2	7	77	<i>Gloeocystis</i> sp. <i>Dinobryon divergens</i>
SDC-7-1	22.8	0	8	171	5	61	7	41	3	12	308	<i>Westella linearis</i>
SDC-7-2	22.8	0	9	23	4	50	8	35	6	11	146	<i>Glenodinium</i> sp. <i>Fragilaria crotonensis</i> <i>Tabellaria fenestrata</i>
SDC-7-3	22.8	0	4	9	5	54	3	17	4	14	110	<i>Glenodinium</i> sp. <i>Tabellaria fenestrata</i>
SDC-7-4	23.0	3	13	64	5	38	18	24	0	27	192	<i>Oocystis</i> sp. <i>Gloeocystis</i> sp. <i>Glenodinium</i> sp.
SDC-7-5	23.1	0	9	94	2	49	8	20	3	25	210	<i>Gloeocystis</i> sp. <i>Oocystis</i> sp. <i>Glenodinium</i> sp.

TABLE 3 continued.

Station	Tem- pera- ture	Coccol- blue- green	Fila- mentous green	Coccol- blue- green	Fila- mentous green	Flagel- lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
<i>2 SEPTEMBER 1971</i>												
DC-2	20.8	13	1	147	0	44	3	7	0	13	228	<i>Gloeocystis</i> sp.
DC-3	22.4	11	1	137	0	40	0	2	2	7	200	<i>Gloeocystis</i> sp.
DC-4	21.8	17	1	210	0	52	1	10	2	15	308	<i>Gloeocystis</i> sp.
DC-5	22.1	17	6	167	0	50	2	1	2	17	262	<i>Gloeocystis</i> sp.
DC-6	23.1	11	5	119	0	47	1	0	0	13	196	<i>Gloeocystis</i> sp.
NDC-.25-1	20.8	15	0	174	0	61	3	14	0	15	282	<i>Gloeocystis</i> sp.
NDC-.5-0	ND	14	2	274	1	210	2	88	0	37	628	<i>Gloeocystis</i> sp.
NDC-.5-1	20.4	9	3	154	0	80	0	52	0	12	310	<i>Gloeocystis</i> sp.
NDC-.5-2	20.7	6	1	197	0	57	11	32	0	21	325	<i>Gloeocystis</i> sp.
NDC-.5-3	20.4	23	0	173	0	40	2	18	1	11	268	<i>Gloeocystis</i> sp.
NDC-1-0	ND	4	1	107	0	63	1	61	0	9	246	<i>Gloeocystis</i> sp.
NDC-1-1	20.5	13	0	189	0	59	12	39	1	27	340	<i>Gloeocystis</i> sp.
NDC-1-2	20.5	12	0	110	0	39	2	16	0	17	196	<i>Gloeocystis</i> sp.
NDC-1-3	20.8	9	1	186	0	39	1	17	0	13	266	<i>Gloeocystis</i> sp.
NDC-2-0	ND	25	4	260	3	134	41	150	1	28	646	<i>Gloeocystis</i> sp. <i>Tabellaria fenestrata</i>
NDC-2-1	20.3	6	0	154	0	51	2	21	0	26	260	<i>Gloeocystis</i> sp.
NDC-2-2	20.3	6	2	217	0	62	39	53	0	37	416	<i>Gloeocystis</i> sp.
NDC-2-3	20.4	22	0	163	0	49	8	14	1	17	274	<i>Gloeocystis</i> sp.
NDC-2-4	21.8	15	4	197	0	92	0	3	0	11	322	<i>Gloeocystis</i> sp.
NDC-4-0	ND	7	2	309	4	129	809	173	0	38	1,471	<i>Melosira</i> sp.
NDC-4-1	20.3	15	2	197	4	73	38	42	2	32	405	<i>Gloeocystis</i> sp.
NDC-4-2	20.3	6	0	136	1	32	22	32	0	21	250	<i>Gloeocystis</i> sp.
NDC-4-3	21.8	18	3	152	0	85	1	4	1	8	272	<i>Gloeocystis</i> sp.
NDC-4-4	22.2	14	1	116	0	50	1	1	0	9	192	<i>Gloeocystis</i> sp.

TABLE 3 continued.

Station	Tem- pera- ture	Coccoid blue- green	Fila- mentous green	Coccoid blue- green	Fila- mentous green	Flagel- lates green	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
2 SEPTEMBER 1971 cont.												
NDC-7-1	23.1	6	3	154	0	89	0	2	1	14	269	<i>Gloeocystis</i> sp.
NDC-7-2	ND	13	2	166	0	68	1	1	0	12	263	<i>Gloeocystis</i> sp.
NDC-7-3	21.9	16	1	172	0	83	0	3	0	13	288	<i>Gloeocystis</i> sp.
NDC-7-4	21.1	19	1	186	0	86	1	10	0	20	323	<i>Gloeocystis</i> sp.
NDC-7-5	21.8	17	2	228	0	77	1	4	0	24	353	<i>Gloeocystis</i> sp.
SDC-.25-1	20.7	13	2	154	0	41	3	13	1	8	235	<i>Gloeocystis</i> sp.
SDC-.5-0	ND	9	0	88	0	78	12	109	2	23	321	<i>Tabellaria fenestrata</i> <i>Gloeocystis</i> sp.
SDC-.5-1	20.7	9	1	187	0	93	5	36	0	15	346	<i>Gloeocystis</i> sp.
SDC-.5-2	21.0	7	0	149	0	52	6	20	1	15	250	<i>Gloeocystis</i> sp.
SDC-.5-3	21.7	21	2	278	0	50	1	15	0	22	389	<i>Gloeocystis</i> sp.
SDC-1-0	ND	10	0	110	0	59	13	97	0	11	300	<i>Gloeocystis</i> sp. <i>Tabellaria fenestrata</i>
SDC-1-1	21.1	6	2	144	0	51	2	32	0	15	252	<i>Gloeocystis</i> sp.
SDC-1-2	21.8	14	1	168	0	37	0	6	0	12	238	<i>Gloeocystis</i> sp.
SDC-1-3	21.8	13	1	227	0	44	1	10	1	12	309	<i>Gloeocystis</i> sp.
SDC-2-0	ND	6	1	177	0	113	2	74	2	12	387	<i>Gloeocystis</i> sp.
SDC-2-1	21.1	13	1	123	0	57	0	43	0	10	247	<i>Gloeocystis</i> sp.
SDC-2-2	21.1	13	1	172	0	78	1	6	0	13	284	<i>Gloeocystis</i> sp.
SDC-2-4	21.0	33	5	284	0	68	0	13	1	17	421	<i>Gloeocystis</i> sp.
SDC-4-0	ND	11	20	436	2	182	32	369	0	52	1,104	<i>Gloeocystis</i> sp.
SDC-4-1	ND	13	0	118	0	41	2	9	0	16	199	<i>Gloeocystis</i> sp.
SDC-4-2	21.6	14	2	186	0	55	3	7	1	11	279	<i>Gloeocystis</i> sp.
SDC-4-3	21.1	26	0	220	0	45	0	18	2	11	322	<i>Gloeocystis</i> sp.
SDC-4-4	ND	24	1	155	0	15	3	1	0	9	208	<i>Gloeocystis</i> sp.

TABLE 3 continued.

Station	Tem- pera- ture	Coccol- blue- green	Fila- mentous green	Coccol- blue- green	Fila- mentous green	Fila- mentous green	Flagel- lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
<i>2 SEPTEMBER 1971 cont.</i>													
SDC-7-1	21.8	132	1	255	0	83	1	10	2	12		496	<i>Gloeocystis</i> sp.
SDC-7-2	21.3	11	0	112	0	56	1	5	1	8		194	<i>Gloeocystis</i> sp.
SDC-7-3	23.2	22	1	182	0	32	0	11	2	13		263	<i>Gloeocystis</i> sp.
SDC-7-4	22.8	8	0	157	0	34	1	10	0	12		222	<i>Gloeocystis</i> sp.
SDC-7-5	20.4	21	3	105	0	47	3	2	2	5		188	<i>Gloeocystis</i> sp.
<i>8 NOVEMBER 1971</i>													
DC-1	9.8	76	4	146	2	185	15	203	2	17		650	<i>Tabellaria fenestrata</i>
DC-2	10.5	18	1	19	0	38	4	62	1	1		144	<i>Tabellaria fenestrata</i> <i>Fragilaria crotonensis</i>
DC-3	11.0	39	2	36	1	74	5	60	1	7		225	<i>Tabellaria fenestrata</i> <i>Ochromonas</i> sp. <i>Fragilaria crotonensis</i> <i>Cryptomonas</i> sp.
DC-4	11.3	47	1	83	0	166	6	49	2	8		362	<i>Ochromonas</i> sp.
DC-5	11.9	33	1	53	0	127	6	61	3	5		289	<i>Ochromonas</i> sp. <i>Chlamydomonas</i> sp. <i>Fragilaria crotonensis</i>
DC-6	9.0	9	1	45	0	65	2	10	1	4		137	<i>Chlamydomonas</i> sp. <i>Gloeocystis</i> sp.
NDC-.25-1	10.3	49	0	63	0	122	6	72	3	10		325	<i>Tabellaria fenestrata</i>
NDC-.5-1	9.2	67	4	41	0	122	11	102	2	6		355	<i>Tabellaria fenestrata</i> <i>Ochromonas</i> sp.
NDC-.5-2	10.1	45	1	74	2	124	3	84	2	11		346	<i>Tabellaria fenestrata</i> <i>Ochromonas</i> sp. <i>Gloeocystis</i> sp.
NDC-.5-3	11.0	34	1	54	0	148	5	46	3	9		300	<i>Ochromonas</i> sp.
NDC-1-1	9.3	26	0	53	0	108	10	79	5	13		294	<i>Tabellaria fenestrata</i> <i>Ochromonas</i> sp. <i>Gloeocystis</i> sp.

TABLE 3 continued.

Station	Tem- pera- ture	Coccol- blue- green	Fila- mentous green	Coccol- blue- green	Fila- mentous green	Flagel- lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
<i>8 NOVEMBER 1971 cont.</i>												
NDC-1-2	10.5	52	1	86	1	167	3	90	6	40	446	<i>Tabellaria fenestrata</i> <i>Ochromonas</i> sp. <i>Gloeocystis</i> sp. <i>Chlamydomonas</i> sp.
NDC-1-3	11.5	43	0	52	0	94	8	103	2	7	309	<i>Fragilaria crotonensis</i> <i>Ochromonas</i> sp.
NDC-2-1	9.3	32	1	59	0	48	18	126	1	7	292	<i>Fragilaria crotonensis</i> <i>Tabellaria fenestrata</i>
NDC-2-2	10.2	50	1	46	0	78	5	43	2	6	231	<i>Ochromonas</i> sp. <i>Tabellaria fenestrata</i> <i>Gloeocystis</i> sp.
NDC-2-3	11.2	42	0	45	0	143	2	35	2	6	275	<i>Ochromonas</i> sp.
NDC-2-4	11.7	28	0	44	0	170	1	7	1	2	253	<i>Ochromonas</i> sp.
NDC-4-0	ND	70	2	39	2	124	4	74	4	32	351	<i>Ochromonas</i> sp. <i>Tabellaria fenestrata</i> <i>Aphanotheca</i> sp.
NDC-4-1	9.8	65	0	67	2	106	0	96	2	6	344	<i>Fragilaria crotonensis</i> <i>Ochromonas</i> sp. <i>Tabellaria fenestrata</i> <i>Aphanotheca</i> sp.
NDC-4-2	10.2	32	0	29	0	28	0	41	0	3	133	<i>Tabellaria fenestrata</i>
NDC-4-3	11.3	41	2	38	0	162	4	26	1	8	282	<i>Ochromonas</i> sp.
NDC-4-4	9.7	10	1	27	0	134	11	26	1	5	215	<i>Chlamydomonas</i> sp.
SDC-.25-1	10.8	50	0	50	0	65	6	58	3	8	240	<i>Tabellaria fenestrata</i>
SDC-.5-2	10.5	26	1	39	0	93	9	106	1	11	286	<i>Tabellaria fenestrata</i>
SDC-1-1	10.0	30	1	62	0	55	0	46	1	13	208	<i>Oocystis</i> sp.
SDC-1-3	11.3	27	2	40	0	95	5	49	1	6	225	<i>Ochromonas</i> sp.
SDC-2-0	ND	82	4	89	2	141	6	122	2	19	467	<i>Tabellaria fenestrata</i> <i>Ochromonas</i> sp. <i>Gloeocystis</i> sp.

Table 3 continued.

Station	Temperature	Coccolid blue-green	Filamentous blue-green	Coccolid green	Filamentous green	Flagellate	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
<b>8 NOVEMBER 1971 cont.</b>												
SDC-2-1	10.0	57	1	57	0	175	9	109	6	9	423	<i>Chlamydomonas</i> sp. <i>Tabellaria fenestrata</i> <i>Ochromonas</i> sp.
SDC-2-2	10.1	44	0	60	1	133	22	171	0	11	442	<i>Fragilaria</i> sp.
SDC-2-3	11.0	31	0	71	1	201	8	69	0	16	397	<i>Ochromonas</i> sp.
SDC-2-4	10.7	28	1	13	0	184	4	54	2	5	291	<i>Ochromonas</i> sp.
SDC-4-1	ND	50	6	117	0	241	13	542	4	32	1,005	<i>Fragilaria crotonensis</i>
SDC-4-4	10.0	17	1	27	0	93	5	14	1	3	161	<i>Chlamydomonas</i> sp.

the dominant species. When the challenging species or group closely approached the cell numbers of the dominant species, the less abundant species or group was recorded as "codominant" and listed in the dominant species column of Table 3. In Table 4, those species or groups which were numerically dominant in the samples of the 1971 Cook Plant surveys are presented.

TABLE 4. Dominant and codominant phytoplankters in the surveys of 1971.

Survey	Species or group	Dominant or codominant occurrences
15 April	<i>Ochromonas</i> sp. (flagellate)	24
	<i>Melosira</i> sp. (diatom)	15
	<i>Chlamydomonas</i> sp. (flagellate)	15
	<i>Tabellaria fenestrata</i> (diatom)	14
	<i>Stephanodiscus</i> sp. (diatom)	13
	<i>Fragilaria crotonensis</i> (diatom)	9
	<i>Cyclotella</i> sp. (diatom)	6
	<i>Fragilaria</i> sp. (diatom)	1
9 July	<i>Gloeocystis</i> sp. (green alga)	47
	<i>Oocystis</i> sp. (green alga)	18
	<i>Glenodinium</i> sp. (flagellate)	12
	<i>Dinobryon divergens</i> (flagellate)	10
	<i>Tabellaria fenestrata</i> (diatom)	8
	<i>Cyclotella</i> sp. (diatom)	4
	<i>Fragilaria crotonensis</i> (diatom)	3
	<i>Scenedesmus</i> sp. ("other" alga)	1
	<i>Crucigenia</i> sp. ("other" alga)	1
	<i>Fragilaria</i> sp. (diatom)	1
	<i>Westella linearis</i> (green alga)	1
2 September	<i>Gloeocystis</i> sp. (green alga)	51
	<i>Tabellaria fenestrata</i> (diatom)	3
	<i>Melosira</i> sp. (diatom)	1
8 November	<i>Ochromonas</i> sp. (flagellate)	20
	<i>Tabellaria fenestrata</i> (diatom)	17
	<i>Fragilaria crotonensis</i> (diatom)	7
	<i>Gloeocystis</i> sp. (green alga)	6
	<i>Chlamydomonas</i> sp. (flagellate)	4
	<i>Cryptomonas</i> sp. (flagellate)	3
	<i>Aphanothece</i> sp. (coccoid blue-green)	2
	<i>Oocystis</i> sp. (green alga)	1
	<i>Fragilaria</i> sp. (diatom)	1



The seasonal surveys of 1971 apparently caught, in April the end of the spring diatom bloom as evidenced (Table 4) by 58 dominant or codominant occurrences of diatoms out of a total of 97 such occurrences.

Green algae came into dominance in the July survey and continued dominant in the warm water of the early September survey. By November they had fallen from prominence with only 7 occurrences as dominants or codominants out of a total of 106.

Flagellates were most heavily dominant in the April survey, declined in July, did not attain to dominant or codominant status in September, and were resurgent in November.

Blue-green algae attained dominant or codominant status only in the November survey when the coccoid blue-green, *Aphanothece* sp., reached such rank on two occasions.

*Master Lists of Phytoplankters Collected During the Surveys.* Table 5. presents in alphabetical order the complete lists of phytoplankters taken during the four surveys of 1971. Over time, such species lists serve as means by which to watch for changes in population composition.

TABLE 5. Master list of phytoplankton collected.

---



---

15 APRIL 1971	
<i>Anabaena circinalis</i>	<i>Coelosphaerium</i> sp.
<i>Anabaena</i> sp.	<i>Cosmarium</i> sp.
<i>Anacystis</i> sp.	<i>Crucigenia</i> sp.
<i>Ankistrodesmus falcatus</i>	<i>Cryptomonas</i> sp.
<i>Ankistrodesmus falcatus</i> v. <i>mirabilis</i>	<i>Cyclotella</i> sp.
<i>Ankistrodesmus gelifactus</i>	<i>Cymatopleura solea</i>
<i>Ankistrodesmus</i> sp.	<i>Diatoma tenue</i>
<i>Aphanothece</i> sp.	<i>Diatoma tenue</i> v. <i>elongatum</i>
<i>Asterionella formosa</i>	<i>Dictyosphaerium</i> sp.
Blue-green unknown colony	<i>Dinobryon divergens</i>
Blue-green unknown filament	Flagellates
<i>Chlamydomonas</i> sp.	<i>Fragilaria crotonensis</i>
<i>Chroococcus</i> sp.	<i>Fragilaria</i> sp.
<i>Cladophora</i> sp.	<i>Glenodinium</i> sp.
<i>Closteriopsis longissima</i>	<i>Gloeocapsa</i> sp.
<i>Closterium acirculare</i>	<i>Gloeocystis</i> sp.
<i>Closterium</i> sp.	<i>Golenkinia</i> sp.
<i>Coelastrum</i> sp.	<i>Gomphonema</i> sp.

TABLE 5 continued.

## 15 APRIL 1971 cont.

*Gomphosphaeria* sp.  
 Green filament, unknown  
*Melosira granulata*  
*Melosira islandica*  
*Melosira* sp.  
*Micractinium pusillum*  
*Microcystis* sp.  
*Mougeotia* sp.  
*Navicula* sp.  
*Nitzschia acicularis*  
*Nitzschia* sp.  
*Ochromonas* sp.  
*Oedogonium* sp.  
*Oocystis* sp.

*Oscillatoria* sp.  
*Pediastrum boryanum*  
*Peridinium* sp.  
*Pleurosigma delicatulum*  
*Rhizosolenia eriensis*  
*Scenedesmus bijuga*  
*Scenedesmus* sp.  
*Sphaerocystis* sp.  
*Stephanodiscus* sp.  
*Synedra ulna*  
*Synedra*  
*Tabellaria fenestrata*  
*Tetraedron minimum*  
*Westella botryoides*

## 9 JULY 1971

*Actinastrum hantzschii*  
*Actinastrum hantzschii* v. *fluviatile*  
*Amphora* sp.  
*Anabaena circinalis*  
*Anabaena* sp.  
*Anacystis* sp.  
*Ankistrodesmus falcatus*  
*Ankistrodesmus falcatus* v. *mirabilis*  
*Ankistrodesmus gelifactus*  
*Ankistrodesmus* sp.  
*Aphanothece* sp.  
*Asterionella formosa*  
 Blue-green unknown filament  
*Botryococcus braunii*  
*Caloneis ventricosa*  
*Ceratium hirundinella*  
*Ceratium* sp.  
*Characium* sp.  
*Chlamydomonas* sp.  
*Cladophora* sp.  
*Closteriopsis longissima*  
*Closterium aciculare*  
*Closterium* sp.  
*Coelastrum* sp.  
*Coelosphaerium* sp.  
*Cosmarium* sp.  
*Crucigenia apiculata*  
*Crucigenia* sp.  
*Crucigenia tetrapedia*  
*Cryptomonas* sp.

*Cyclotella antiqua*  
*Cyclotella* sp.  
*Cymatopleura solea*  
*Cymatopleura* sp.  
*Cymbella subventricosa*  
*Diatoma* sp.  
*Diatoma tenue*  
*Diatoma tenue* v. *elongatum*  
*Diatoma vulgare*  
*Dictyosphaerium* sp.  
*Dinobryon divergens*  
*Dinobryon pediforme*  
*Dinobryon* sp.  
*Elakatothrix gelatinosa*  
 Flagellates  
*Fragilaria capucina*  
*Fragilaria crotonensis*  
*Fragilaria intermedia* v. *fallax*  
*Fragilaria* sp.  
*Franceia droescheri*  
*Franceia ovalis*  
*Franceia* sp.  
*Glenodinium* sp.  
*Gloeocystis* sp.  
*Golenkinia radiata*  
*Golenkinia* sp.  
 Green colony, unknown  
*Kirchneriella* sp.  
*Lagerheimia* sp.  
*Melosira islandica*

TABLE 5 continued.

9 JULY 1971 cont.

*Melosira* sp.  
*Merismopedia* sp.  
*Micractinium* sp.  
*Microcystis* sp.  
*Mougeotia* sp.  
*Navicula aurora*  
*Navicula capitata*  
*Navicula* sp.  
*Neidium* sp.  
*Nephrocystium* sp.  
*Nitzschia acicularis*  
*Nitzschia recta*  
*Nitzschia* sp.  
*Ochromonas* sp.  
*Oedogonium* sp.  
*Oocystis* sp.  
*Oocystis submarina*  
*Oscillatoria* sp.  
*Pandorina* sp.  
*Pediastrum boryanum*  
*Pediastrum duplex*  
*Pediastrum glanduliferum*  
*Pediastrum obtusum*  
*Pediastrum simplex*  
*Pediastrum tetras*  
*Pediastrum tetras* v. *tetradon*  
*Penium* sp.  
*Peridinium* sp.  
*Rhizosolenia* sp.

*Scenedesmus arcuatus*  
*Scenedesmus bijuga*  
*Scenedesmus brasiliensis*  
*Scenedesmus dimorphus*  
*Scenedesmus opoliensis* v. *contacta*  
*Scenedesmus quadricauda*  
*Scenedesmus* sp.  
*Schroederia* sp.  
*Selenastrum* sp.  
*Sphaerocystis* sp.  
*Spirogyra* sp.  
 Spores  
*Staurastrum gracile*  
*Staurastrum* sp.  
*Stephanodiscus* sp.  
*Synedra delicatissima*  
*Synedra filiformis*  
*Synedra* sp.  
*Synedra ulna*  
*Tabellaria fenestrata*  
*Tetraedron asymmetricum*  
*Tetraedron caudatum*  
*Tetraedron minimum*  
*Tetraedron regulare*  
*Tetraedron* sp.  
*Tetraedron tumidulum*  
*Treubaria setigerum*  
*Westella botryoides*  
*Westella linearis*

2 SEPTEMBER 1971

*Actinastrum hantzschii* v. *fluviatile*  
*Anabaena* sp.  
*Ankistrodesmus falcatus*  
*Ankistrodesmus falcatus* v. *mirabilis*  
*Ankistrodesmus gelifactus*  
*Ankistrodesmus* sp.  
*Aphanothece* sp.  
*Aphanocapsa* sp.  
*Asterionella formosa*  
 Blue-green unknown filament  
*Ceratium hirundinella*  
*Chlamydomonas* sp.  
*Chroococcus* sp.  
*Closterium* sp.  
*Coelastrum* sp.

*Coelosphaerium* sp.  
*Cosmarium* sp.  
*Crucigenia apiculata*  
*Crucigenia irregularis*  
*Crucigenia quadrata*  
*Crucigenia rectangularis*  
*Crucigenia* sp.  
*Crucigenia tetrapedia*  
*Cryptomonas* sp.  
*Cyclotella* sp.  
*Diatoma tenue*  
*Dictyosphaerium* sp.  
*Dinobryon divergens*  
*Dinobryon pediforme*  
*Dinobryon* sp.

TABLE 5 continued.

2 SEPTEMBER 1971 cont.

Flagellates  
*Fragilaria capucina*  
*Fragilaria crotonensis*  
*Fragilaria* sp.  
*Franceia droescheri*  
*Franceia* sp.  
*Glenodinium* sp.  
*Gloeocystis* sp.  
*Golenkinia* sp.  
*Gomphonema* sp.  
*Gomphosphaeria aponina*  
*Gomphosphaeria lacustris*  
*Gomphosphaeria* sp.  
 Green colony, unknown  
*Kirchneriella* sp.  
*Lagerheimia* sp.  
*Melosira islandica*  
*Melosira* sp.  
*Microcystis* sp.  
*Navicula* sp.  
*Nephrocytium* sp.  
*Nitzschia acicularis*  
*Nitzschia* sp.  
*Ochromonas* sp.  
*Oedogonium* sp.  
*Oocystis* sp.

*Ophiocytium* sp.  
*Oscillatoria* sp.  
*Pandorina* sp.  
*Pediastrum boryanum*  
*Pediastrum duplex*  
*Pediastrum simplex*  
*Pediastrum* sp.  
*Penium cylindrum*  
*Penium* sp.  
*Peridinium* sp.  
*Scenedesmus bijuga*  
*Scenedesmus dimorphus*  
*Scenedesmus quadricauda*  
*Scenedesmus* sp.  
*Schroederia* sp.  
*Selenastrum* sp.  
*Sphaerocystis* sp.  
*Stephanodiscus* sp.  
*Synedra* sp.  
*Tabellaria fenestrata*  
*Tetraedron caudatum*  
*Tetraedron minimum*  
*Tetraedron trigonum*  
*Treubaria* sp.  
*Westella botryoides*  
*Westella linearis*

8 NOVEMBER 1971

*Amphipleura pellucida*  
*Amphipleura* sp.  
*Amphiprora ornata*  
*Amphora ovalis*  
*Amphora* sp.  
*Anabaena* sp.  
*Ankistrodesmus falcatus*  
*Ankistrodesmus falcatus* v. *mirabilis*  
*Ankistrodesmus gelifactus*  
*Ankistrodesmus* sp.  
*Aphanothece* sp.  
*Aphanocapsa* sp.  
*Asterionella formosa*  
 Blue-green unknown filament  
*Caloneis* sp.  
*Ceratium hirundinella*  
*Characium* sp.  
*Chlamydomonas* sp.

*Chroococcus* sp.  
*Closteriopsis longissima*  
*Closterium acirculare*  
*Closterium* sp.  
*Coelastrum* sp.  
*Coelosphaerium* sp.  
*Cosmarium* sp.  
*Crucigenia irregularis*  
*Crucigenia quadrata*  
*Crucigenia* sp.  
*Cryptomonas* sp.  
*Cyclotella* sp.  
*Cymatopleura solea*  
*Desmid* sp.  
 Diatom, unknown  
*Diatoma* sp.  
*Diatoma tenue*  
*Diatoma vulgare*

TABLE 5 continued.

8 NOVEMBER 1971 cont.

<i>Dictyosphaerium</i> sp.	<i>Nitzschia recta</i>
<i>Dinobryon divergens</i>	<i>Nitzschia</i> sp.
<i>Diploneis parma</i>	<i>Ochromonas</i> sp.
<i>Diploneis</i> sp.	<i>Oedogonium</i> sp.
<i>Elakatothrix</i> sp.	<i>Oocystis</i> sp.
Flagellates	<i>Oscillatoria</i> sp.
<i>Fragilaria capucina</i>	<i>Pediastrum boryanum</i>
<i>Fragilaria crotonensis</i>	<i>Penium</i> sp.
<i>Fragilaria intermedia</i> v. <i>fallax</i>	<i>Peridinium</i> sp.
<i>Fragilaria pinnata</i>	<i>Quadrigula</i> sp.
<i>Fragilaria</i> sp.	<i>Rhizosolenia eriensis</i>
<i>Glenodinium</i> sp.	<i>Rhizosolenia</i> sp.
<i>Gloeocystis</i> sp.	<i>Scenedesmus bijuga</i>
<i>Gomphosphaeria</i> sp.	<i>Scenedesmus dimorphus</i>
Green colony, unknown	<i>Scenedesmus quadricauda</i>
Green solitary, unknown	<i>Scenedesmus</i> sp.
<i>Gyrosigma</i> sp.	<i>Schroederia</i> sp.
<i>Kirchneriella</i> sp.	<i>Sphaerocystis</i> sp.
<i>Lagerheimia</i> sp.	<i>Staurastrum cuspidatum</i>
<i>Melosira islandica</i>	<i>Staurastrum gracile</i>
<i>Melosira islandica auxospores</i>	<i>Staurastrum</i> sp.
<i>Melosira</i> sp.	<i>Staurodesmus connatus</i>
<i>Merismopedia</i> sp.	<i>Stephanodiscus</i> sp.
<i>Micractinium</i> sp.	<i>Surirella</i> sp.
<i>Mougeotia</i> sp.	<i>Synedra filiformis</i>
<i>Navicula platystoma</i> v. <i>pantocsekii</i>	<i>Synedra</i> sp.
<i>Navicula radiosa</i>	<i>Synedra ulna</i>
<i>Navicula</i> sp.	<i>Tabellaria fenestrata</i>
<i>Nephrocytium</i> sp.	<i>Tetraedron caudatum</i>
<i>Nitzschia acicularis</i>	<i>Tetraedron minimum</i>
<i>Nitzschia palea</i>	

Table 6 is a summary table presenting station by station the numbers of phytoplankton species or groups collected, the numbers of individual phytoplankters per milliliter, and the Wilhm and Dorris diversity index of each station's collection. The diversity index of Wilhm and Dorris (1968) is

$$\bar{d} = - \sum (N_i/N) \log_2 (N_i/N)$$

in which  $(N_i/N)$  is the percentage of the population,  $N$ , that is represented by any one species or group,  $N_i$ , of the collection. Computed for each species or group and summed, the calculation yields a diversity index for the station collection.

TABLE 6. Number of phytoplankton species or groups, number of individuals per milliliter, and diversity indices of the 1971 station collections.

Station	Species or groups	Indivi- duals/ml	Div. index	Station	Species or groups	Indivi- duals/ml	Div. index
15 APRIL 1971							
DC-1	18	341	3.21	SDC-.5-0	16	1,662	3.09
DC-2	21	335	3.25	SDC-.5-1	22	1,096	3.23
DC-3	18	455	2.95	SDC-.5-2	28	618	3.26
DC-4	33	233	3.83	SDC-.5-3	25	275	3.33
DC-5	18	90	3.18	SDC-1-0	24	1,613	3.30
DC-6	19	133	2.67	SDC-1-1	21	556	3.32
NDC-.25-1	18	296	3.22	SDC-1-2	24	599	3.16
NDC-.5-0	12	686	2.60	SDC-1-3	25	268	3.55
NDC-.5-1	18	1,036	3.09	SDC-2-0	21	1,728	3.07
NDC-.5-2	19	393	2.91	SDC-2-1	16	764	3.02
NDC-.5-3	21	587	3.10	SDC-2-2	21	254	3.33
NDC-1-0	14	860	2.76	SDC-2-3	24	325	3.37
NDC-1-1	--	--	--	SDC-2-4	25	219	3.01
NDC-1-2	17	464	3.17	SDC-4-0	23	1,027	3.32
NDC-1-3	19	228	3.22	SDC-4-1	--	--	--
NDC-2-0	13	1,001	2.99	SDC-4-2	20	275	3.23
NDC-2-1	19	741	3.11	SDC-4-3	22	196	3.14
NDC-2-2	--	--	--	SDC-4-4	11	23	2.48
NDC-2-3	21	90	3.34	SDC-7-1	21	543	3.07
NDC-2-4	16	174	2.87	SDC-7-2	24	449	3.28
NDC-4-0	17	1,450	2.90	SDC-7-3	19	274	3.28
NDC-4-1	20	623	3.25	SDC-7-4	24	179	3.37
NDC-4-2	--	--	--	SDC-7-5	24	177	3.14
NDC-4-3	24	313	3.35	Overall ave. diversity index			3.15
NDC-4-4	18	191	2.68	9 JULY 1971			
NDC-7-1	--	--	--	DC-1	--	--	--
NDC-7-2	24	1,041	3.17	DC-2	36	1,305	1.20
NDC-7-3	--	--	--	DC-3	26	177	3.13
NDC-7-4	21	429	3.18	DC-4	44	1,652	1.89
NDC-7-5	18	170	3.31	DC-5	40	561	2.52
SDC-.25-1	34	846	3.50				

TABLE 6 continued.

Station	Species or groups	Indivi- duals/ml	Div. index	Station	Species or groups	Indivi- duals/ml	Div. index
9 JULY 1971 cont.							
DC-6	21	142	2.69	SDC-1-2	38	238	3.88
NDC-.25-1	35	299	3.15	SDC-1-3	19	79	3.45
NDC-.5-0	33	716	3.62	SDC-2-0	39	784	4.19
NDC-.5-1	36	315	3.25	SDC-2-1	31	208	3.91
NDC-.5-2	31	280	3.25	SDC-2-2	37	246	3.99
NDC-.5-3	27	124	3.71	SDC-2-3	36	284	3.70
NDC-1-0	32	504	3.67	SDC-2-4	30	85	3.99
NDC-1-1	33	621	3.51	SDC-4-0	38	412	3.89
NDC-1-2	38	267	3.54	SDC-4-1	34	232	3.91
NDC-1-3	24	97	3.29	SDC-4-2	32	171	4.07
NDC-2-0	34	912	2.92	SDC-4-3	31	256	3.75
NDC-2-1	34	344	3.08	SDC-4-4	22	76	3.49
NDC-2-2	37	328	3.39	SDC-7-1	34	308	3.29
NDC-2-3	27	110	3.82	SDC-7-2	33	146	4.01
NDC-2-4	39	348	3.28	SDC-7-3	28	110	3.79
NDC-4-0	42	327	3.69	SDC-7-4	37	191	4.27
NDC-4-1	44	443	3.58	SDC-7-5	38	209	4.00
NDC-4-2	42	316	3.48	Overall ave. diversity index			3.41
NDC-4-3	32	242	3.68	2 SEPTEMBER 1971			
NDC-4-4	17	72	3.05	DC-1	--	--	--
NDC-7-1	53	3,611	1.62	DC-2	31	228	3.19
NDC-7-2	44	1,537	1.71	DC-3	29	200	2.90
NDC-7-3	46	2,436	1.67	DC-4	33	308	3.05
NDC-7-4	37	213	3.92	DC-5	26	262	3.07
NDC-7-5	34	319	3.16	DC-6	25	196	3.12
SDC-.25-1	38	219	3.99	NDC-.25-1	32	282	3.21
SDC-.5-0	27	99	3.61	NDC-.5-0	38	628	3.53
SDC-.5-1	27	306	3.86	NDC-.5-1	33	310	3.44
SDC-.5-2	35	277	3.88	NDC-.5-2	39	325	2.98
SDC-.5-3	30	133	3.87	NDC-.5-3	32	268	3.04
SDC-1-0	39	522	3.88	NDC-1-0	27	246	3.18
SDC-1-1	28	104	3.75				

Station	Species or groups	Indivi- duals/ml	Div. index	Station	Species or groups	Indivi- duals/ml	Div. index
22 SEPTEMBER 1971 cont.							
NDC-1-1	33	340	3.21	SDC-4-0	28	1,104	3.31
NDC-1-2	32	196	3.43	SDC-4-1	30	199	3.08
NDC-1-3	33	266	3.02	SDC-4-2	31	279	2.91
NDC-2-0	36	646	3.49	SDC-4-3	31	322	2.69
NDC-2-1	30	260	3.21	SDC-4-4	26	208	2.38
NDC-2-2	43	416	3.55	SDC-7-1	27	496	2.88
NDC-2-3	39	274	3.40	SDC-7-2	26	194	3.03
NDC-2-4	25	322	2.63	SDC-7-3	30	263	2.92
NDC-4-0	36	1,471	2.31	SDC-7-4	27	222	2.94
NDC-4-1	33	405	3.37	SDC-7-5	20	188	2.91
NDC-4-2	35	250	3.54	Overall ave. diversity index			3.04
NDC-4-3	27	272	3.21	8 NOVEMBER 1971			
NDC-4-4	23	192	2.81	DC-1	36	650	3.75
NDC-7-1	31	269	2.97	DC-2	22	144	3.38
NDC-7-2	31	263	2.97	DC-3	29	225	3.70
NDC-7-3	29	288	2.81	DC-4	36	362	3.51
NDC-7-4	30	323	2.92	DC-5	29	289	3.67
NDC-7-5	31	353	3.04	DC-6	23	137	3.16
SDC-.25-1	28	235	3.03	NDC-.25-1	36	325	3.73
SDC-.5-0	26	321	3.21	NDC-.5-0	--	--	--
SDC-.5-1	39	346	3.08	NDC-.5-1	22	355	3.77
SDC-.5-2	31	250	3.04	NDC-.5-2	31	346	3.77
SDC-.5-3	35	389	2.69	NDC-.5-3	35	300	3.64
SDC-1-0	26	300	3.09	NDC-1-0	--	--	--
SDC-1-1	27	252	2.98	NDC-1-1	36	294	3.95
SDC-1-2	24	238	2.68	NDC-1-2	27	446	3.67
SDC-1-3	33	309	2.50	NDC-1-3	31	309	3.70
SDC-2-0	25	387	3.14	NDC-2-0	--	--	--
SDC-2-1	29	247	3.26	NDC-2-1	29	292	3.76
SDC-2-2	32	284	2.95	NDC-2-2	34	231	3.84
SDC-2-3	--	--	--	NDC-2-3	26	275	3.35
SDC-2-4	36	421	2.89				



TABLE 6 continued.

Station	Species or groups	Indivi- duals/ml	Div. index	Station	Species or groups	Indivi- duals/ml	Div. index
8 NOVEMBER 1971 cont.				SDC-7-3	--	--	--
NDC-2-4	22	253	2.91	SDC-7-4	--	--	--
NDC-4-0	26	351	3.90	SDC-7-5	--	--	--
NDC-4-1	21	344	3.61	Overall ave. diversity index			3.59
NDC-4-2	21	133	3.43				
NDC-4-3	31	282	3.32				
NDC-4-4	28	215	3.02				
NDC-7-1	--	--	--				
NDC-7-3	--	--	--				
NDC-7-4	--	--	--				
NDC-7-5	--	--	--				
SDC-.25-1	27	240	3.84				
SDC-.5-0	--	--	--				
SDC-.5-1	--	--	--				
SDC-.5-2	38	286	3.82				
SDC-.5-3	--	--	--				
SDC-1-0	--	--	--				
SDC-1-1	34	208	3.63				
SDC-1-2	--	--	--				
SDC-1-3	34	225	3.62				
SDC-2-0	32	467	3.99				
SDC-2-1	31	423	3.78				
SDC-2-2	29	442	3.70				
SDC-2-3	35	397	3.62				
SDC-2-4	36	291	3.30				
SDC-4-0	--	--	--				
SDC-4-1	35	1,005	3.45				
SDC-4-2	--	--	--				
SDC-4-3	--	--	--				
SDC-4-4	23	161	3.28				
SDC-7-1	--	--	--				
SDC-7-2	--	--	--				

*Search for Riverine Species.* E. F. Stoermer (Great Lakes Research Division, Univ. of Michigan) has provided the following list of phytoplankton species and groups which, if heavily dominant in a station collection, could be taken as evidence of the presence of river water at that station.

<i>Amphora ovalis</i>	<i>Navicula costulata</i>
<i>Amphora</i> sp.	<i>Navicula gastrum</i>
<i>Cyclotella meneghiniana</i>	<i>Navicula</i> sp.
<i>Melosira granulata</i>	<i>Nitzschia acicularis</i>
<i>Melosira granulata</i> v. <i>angustissima</i>	<i>Nitzschia</i> sp.
<i>Navicula capitata</i>	<i>Synedra ulna</i>
<i>Navicula decussis</i>	

Each station collection species list in Appendix B was searched for the presence and degree of dominance of each of these organisms. Of the total 990 species or groups collected at all stations during the April survey, only 21 were of these riverine forms; of 1,799 total species or groups taken at all the stations of the July survey, only 51 were riverine forms; of 1,589 total forms taken during the September survey, only 35 were riverine forms; in November 985 species and groups were captured at all the stations of the survey, of these only 51 were riverine forms.

In no case did the riverine forms achieve dominant or codominant abundance; in practically all the appearances of these forms they comprised less than 1% of the station population. During the seasonal surveys of 1971 the phytoplankton showed no evidence of substantial presence of river water.

## A.5 STUDY OF ZOOPLANKTON

### METHODS

On 15 April, 9 July, 2 September, and 8 November 1971 zooplankton were collected in major coverages of the Cook survey grid. Zooplankton were collected with a 0.5 m diameter #10-mesh net (158 $\mu$  aperture) towed vertically from near the bottom to the surface. A flowmeter mounted in the net mouth measured the volume of water passing through the net. Each sample was preserved with Koechies fluid, labeled, and then transported to the laboratory for examination.

Two methods were used to count the samples, the two methods giving

equivalent results: 1) Those samples examined prior to 1972 were diluted to a known volume, mixed with a magnetic stirrer, and then subsampled with a Henson-Stempel pipette. The 1-ml subsamples were placed in depressions on a glass spot plate, and as many were enumerated as necessary to give counts of several hundred for the major taxa. 2) Those samples examined in 1972 and thereafter were subsampled with a Folsom plankton splitter, each sample being split as many times as necessary to yield a subsample containing several hundred of the most common taxa. Two subsamples were then counted using a circular counting chamber, and two larger subsamples were examined for rarer forms.

Comparability of the two subsampling methods was discussed in Part XIII, p. 162, of our report series. In enumerating by the newer method, we have made a number of taxonomic distinctions that had not been made previously. The taxon "cyclopoid copepods" was broken down into adult and immature copepodids, with adults being further separated according to genus; immature calanoid copepodids were likewise recorded separately rather than being lumped with adults in the taxon "diaptomids"; and in the family Bosminidae, distinction was made between the genera *Bosmina* and *Eubosmina*. In addition, nauplii were counted in those samples examined by the more recent method. In order that results obtained by the two counting schemes be directly comparable, we have retained the categories "total cyclopoids," "total diaptomids," and "total Bosminidae" throughout Table 8. In addition, column totals are given both with and without nauplii.

At three stations (DC-6, DC-5, and DC-2) identification of adults was carried to species.

## RESULTS

Work on the zooplankton collected in 1971 was completed after we had finished and reported the 1972 collections. Since a #10 net was used for both collections and since monthly sampling was carried out for the first time in 1972, this year furnishes the most useful data for comparison with the 1971 surveys. The four 1971 dates were a happy choice, for we found four clearly distinguishable assemblage types. A winter fauna consisting almost exclusively of adult copepods was still present at the offshore stations in

April, an early-summer fauna heavily dominated by *Bosmina* was present on the July date, a late-summer fauna consisting of a diverse cladoceran assemblage dominated by *Daphnia* was found in September, and a fall collection containing ehippial cladocera and large numbers of immature copepods was obtained in November. Data from 1972 indicate that, in the intervening months, transitions between these assemblage types occur. It should be noted, however, that for several species, population maxima probably occurred in the months of August (*Bosmina*, *Ceriodaphnia*) or October (*Eubosmina*, *Diaptomus oregonensis*); and thus these peaks were missed by the seasonal surveys.

The same 16 general and 21 species noted as common in 1972 (Part XIII, Table 18) were common during 1971 (Table 7). These are the taxa for which abundances are listed in Table 8 (samples counted to species) and in Appendix C (samples counted to genus). We found seven other species only rarely. Their numbers have been included, however, in the totals given at the bottom of each column in Table 8 and Appendix C. These species are rare in the Cook survey area either because they are deep-water forms (*Senecella*, *Daphnia longiremis*) or because they are littoral-benthic species (*Paracyclops*, *Alona*, *Alonella*, *Eurycercus*). *Alona* and *Eurycercus* were found at a large number of stations during the July survey, all but one of which were less than 20 m in depth.

#### *The Survey of 15 April 1971*

On this date the zooplankton fauna consisted almost entirely of five copepod species--*Cyclops bicuspidatus thomasi* and the four *Diaptomus* species *D. ashlandi*, *D. minutus*, *D. oregonensis*, and *D. sicilis*. Total numbers ranged from less than 1000/m<sup>3</sup> at several inshore stations to over 16,000/m<sup>3</sup> at one middle-depth station. These numbers were probably close to a yearly low. Small numbers of immature *Diaptomus* suggest a winter curtailment of reproduction by at least some of these species, but the abundance of nauplii indicate accelerated reproduction shortly before the survey date. *Diaptomus minutus* females were observed with eggs, and females of *D. ashlandi* often carried spermatophores. *Limnocalanus macrurus*, which reproduces during the winter, was present mainly in the naupliar and early copepodid stages (C1-C3). Larger numbers of immature cyclopoids were found in the spring of 1971 than in the spring of 1972; otherwise the assemblages differed little.

TABLE 7. The common zooplankton Crustacea (16 genera, 21 species).

	Max. % of fauna in collections	
	1971	1972
Cyclopoid copepods (2 genera, 3 species)		
<i>Cyclops bicuspidatus thomasi</i> S. A. Forbes	36	42
<i>Cyclops vernalis</i> Fischer	<1	<1
<i>Tropocyclops prasinus mexicanus</i> Kiefer	5	3
Calanoid copepods (4 genera, 7 species)		
<i>Diaptomus ashlandi</i> Marsh	22	43
<i>Diaptomus minutus</i> Lilljeborg	8	12
<i>Diaptomus oregonensis</i> Lilljeborg	7	9
<i>Diaptomus sicilis</i> S. A. Forbes	<1	2
<i>Epischura lacustris</i> S. A. Forbes	<1	1
<i>Eurytemora affinis</i> (Poppe)	<1	<1
<i>Limnocalanus macrurus</i> Sars	<1	1
Harpacticoid copepods (1 genus, 1 species)		
<i>Canthocamptus</i> sp.	<1	1
Cladocerans (9 genera, 10 species)		
<i>Bosmina longirostris</i> (O. F. Muller)	85	85
<i>Eubosmina coregoni</i> (Baird)	19	12
<i>Ceriodaphnia quadrangula</i> (O. F. Müller)	1	<1
<i>Chydorus sphaericus</i> (O. F. Müller)	<1	<1
<i>Daphnia galeata mendotae</i> Birge	11	6
<i>Daphnia retrocurva</i> S. A. Forbes	28	16
<i>Diaphanosoma leuchtenbergianum</i> Fischer	<1	1
<i>Holopedium gibberum</i> Zaddach	10	7
<i>Leptodora kindtii</i> (Focke)	<1	<1
<i>Polyphemus pediculus</i> (Linné)	<1	1

Particular interest is given this survey by the presence of a thermal bar condition in the Cook area. A plot of surface temperatures places the 4°C isotherm along the 18-m depth contour (Fig. 2). On another survey date, 2 May 1972, we also encountered a thermal bar condition in the area; at this time the 4° isotherm was located along the 25-m contour. On 12 April 1972, stations throughout the survey area had surface temperatures less than 4°, while

TABLE 8. Zooplankton species counts (ind/m<sup>3</sup>), coefficients of variation between duplicate subsamples, percent composition by species, total zooplankton, and Wilhm and Dorris diversity indices for 3 stations sampled.

Species	15 APRIL 1971									
	DC-6					DC-5				
	#/m <sup>3</sup>	c.v.	%	#/m <sup>3</sup>	%	c.v.	#/m <sup>3</sup>	c.v.	#/m <sup>3</sup>	%
Copepod nauplii	583	4	10.5	401	6.9	48	3516	5	61.8	
Cyclopoid copepods										
Immature copepodids	1403	7	25.2	1443	7	24.8	428	15	7.5	
<i>Cyclops bicuspidatus thomasi</i>	1491	15	26.8	2070	11	35.6	270	10	4.7	
<i>Cyclops vernalis</i>	0	--	0.0	0	--	0.0	7	144	0.1	
<i>Tropocyclops prasinus mexicanus</i>	29	142	0.5	44	18	0.8	0	--	0.0	
Total Cyclopoids	2923			3557			705			
Calanoid copepods										
Immature copepodids	165	20	3.0	206	20	3.5	224	8	3.9	
<i>Diaptomus ashlandi</i>	1238	8	22.2	1257	6	21.6	843	20	14.8	
<i>Diaptomus minutus</i>	442	2	7.9	176	16	3.0	342	5	6.0	
<i>Diaptomus oregonensis</i>	165	30	3.0	210	3	3.6	26	0	0.5	
<i>Diaptomus sicilis</i>	47	0	0.8	7	143	0.1	13	0	0.2	
Total Diaptomids	2057			1850			1449			
<i>Epischura lacustris</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Eurytemora affinis</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Limnocalanus macrurus</i>	3	186	0.1	0	--	0.0	7	144	0.1	
Harpacticoid copepods	0	--	0.0	0	--	0.0	13	142	0.2	
<i>Canthocamptus</i> sp.										
Cladocerans										
<i>Bosmina longirostris</i>	3	186	0.1	2	183	0.0	0	--	0.0	
<i>Eubosmina coregoni</i>	0	--	0.0	0	--	0.0	0	--	0.0	
Total Bosminidae	3			2			0			
<i>Ceriodaphnia quadrangula</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Chydorus sphaericus</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Daphnia galeata mendotae</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Daphnia retrocurva</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Diaphanosoma leuchtenbergianum</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Holopedium gibberum</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Leptodora kindtii</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Polyphemus pediculus</i>	0	--	0.0	0	--	0.0	0	--	0.0	
Rotifers										
<i>Asplanchna</i> sp.	0	--	0.0	0	--	0.0	0	--	0.0	
TOTAL	5569			5820			5689			
TOTAL w/o nauplii	4986			5419			2173			
Diversity index	1.75			1.81			1.71			

TABLE 8 continued.

Species	9 JULY 1971									
	DC-6			DC-5			DC-2			%
	#/m <sup>3</sup>	c.v.	%	#/m <sup>3</sup>	c.v.	%	#/m <sup>3</sup>	c.v.	%	
Copepod nauplii	4,916	29	9.4	3,904	4	8.7	3,766	2	4.8	
Cyclopoid copepods										
Immature copepodids	11,501	16	21.9	6,319	5	14.1	1,501	64	1.9	
<i>Cyclops bicuspidatus thomasi</i>	2,528	19	4.8	986	14	2.2	7	143	0.0	
<i>Cyclops vernalis</i>	0	--	0.0	0	--	0.0	7	143	0.0	
<i>Tropocyclops prasinus mexicanus</i>	70	47	0.1	81	0	0.2	868	12	1.1	
Total Cyclopoids	14,099			7,386			2,383			
Calanoid copepods										
Immature copepodids	9,090	1	17.3	6,400	20	14.3	2,648	13	3.4	
<i>Diaptomus ashlandi</i>	881	30	1.7	745	34	1.7	0	--	0.0	
<i>Diaptomus minutus</i>	1,043	3	2.0	342	25	0.8	118	18	0.2	
<i>Diaptomus oregonensis</i>	464	14	0.9	40	141	0.1	74	57	0.1	
<i>Diaptomus sicilis</i>	23	142	0.0	0	--	0.0	0	--	0.0	
Total Diaptomids	11,501			7,527			2,840			
<i>Epischura lacustris</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Eurytemora affinis</i>	0	--	0.0	0	--	0.0	22	48	0.0	
<i>Limnocalanus macrurus</i>	23	142	0.0	0	--	0.0	0	--	0.0	
Harpacticoid copepods										
<i>Canthocamptus</i> sp.	0	--	0.0	0	--	0.0	0	--	0.0	
Cladocerans										
<i>Bosmina longirostris</i>	21,055	11	40.1	25,197	9	56.1	65,942	0	84.5	
<i>Eubosmina coregoni</i>	0	--	0.0	20	142	0.0	0	--	0.0	
Total Bosminidae	21,055			25,217			65,942			
<i>Ceriodaphnia quadrangula</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Chydorus sphaericus</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Daphnia galeata mendotae</i>	70	47	0.1	0	--	0.0	0	--	0.0	
<i>Daphnia retrocurva</i>	278	24	0.5	302	66	0.7	44	95	0.1	
<i>Diaphanosoma leuchtenbergianum</i>	0	--	0.0	0	--	0.0	0	--	0.0	
<i>Holopedium gibberum</i>	23	142	0.0	0	--	0.0	15	143	0.0	
<i>Leptodora kindtii</i>	0	--	0.0	0	--	0.0	15	0	0.0	
<i>Polyphemus pediculus</i>	371	18	0.7	181	47	0.4	74	0	0.1	
Rotifers										
<i>Asplanchna</i> sp.	116	28	0.2	382	22	0.9	2,943	17	3.8	
TOTAL	52,452			44,901			78,043			
TOTAL w/o nauplii	47,536			40,997			74,277			
Diversity index	1.68			1.48			0.70			

TABLE 8 continued.

Species	2 SEPTEMBER 1971					
	DC-6			DC-5		
	#/m <sup>3</sup>	c.v.	%	#/m <sup>3</sup>	c.v.	%
DC-2						
	#/m <sup>3</sup>	c.v.	%	#/m <sup>3</sup>	c.v.	%
Copepod nauplii	2,067	16	2.3	3,243	24	3.9
Cyclopoid copepods						
Immature copepodids	26,057	3	29.0	16,683	1	19.9
<i>Cyclops bicuspidatus thomasi</i>	9,327	0	10.4	2,517	26	3.0
<i>Cyclops vernalis</i>	24	142	0.0	21	141	0.0
<i>Tropocyclops prasinus mexicanus</i>	2,163	16	2.4	4,480	12	5.3
Total Cyclopoids	37,571	161		23,701		
Calanoid copepods						
Immature copepodids	12,355	4	13.8	11,968	6	14.2
<i>Diaptomus ashlandi</i>	2,284	7	2.5	341	53	0.4
<i>Diaptomus minutus</i>	337	61	0.4	405	37	0.5
<i>Diaptomus oregonensis</i>	481	42	0.5	299	20	0.4
<i>Diaptomus sicilis</i>	0	--	0.0	0	--	0.0
Total Diaptomids	15,457			13,013		
<i>Epischura lacustris</i>	48	141	0.1	21	141	0.0
<i>Eurytemora affinis</i>	120	85	0.1	85	71	0.1
<i>Limnocalanus macrurus</i>	0	--	0.0	0	--	0.0
Harpacticoid copepods						
<i>Canthocamptus</i> sp.	0	--	0.0	0	--	0.0
Cladocerans						
<i>Bosmina longirostris</i>	18,269	0	20.3	25,109	6	29.9
<i>Eubosmina coregoni</i>	120	28	0.1	896	20	1.1
Total Bosminidae	18,389			26,005		
<i>Ceriodaphnia quadrangula</i>	72	141	0.1	85	141	0.1
<i>Chydorus sphaericus</i>	0	--	0.0	21	141	0.0
<i>Daphnia galeata mendotae</i>	337	20	0.4	320	47	0.4
<i>Daphnia retrocurva</i>	14,423	7	16.1	14,613	8	17.4
<i>Diaphanosoma leuchtenbergianum</i>	24	142	0.0	107	85	0.1
<i>Holopedium gibberum</i>	577	0	0.6	1,131	3	1.3
<i>Leptodora kindtii</i>	0	--	0.0	43	0	0.1
<i>Polyphemus pediculus</i>	24	142	0.0	85	141	0.1
Rotifers						
<i>Asplanchna</i> sp.	673	20	0.7	1,515	2	1.8
TOTAL	89,780			83,989		
TOTAL w/o nauplii	87,713			80,746		
Diversity index	2.01			2.17		
						2.63



TABLE 8 continued.

Species	8 NOVEMBER 1971							
	DC-6				DC-5			
	#/m <sup>3</sup>	c.v.	%	#/m <sup>3</sup>	#/m <sup>3</sup>	c.v.	%	DC-2 #/m <sup>3</sup> c.v. %
Copepod nauplii	709	26	2.5	290	52	1.1	1.1	22 8.5
Cyclopoid copepods								
Immature copepodids								
<i>Cyclops bicuspidatus thomasi</i>	7,940	2	27.8	8,229	7	30.1	6	45.6
<i>Cyclops vernalis</i>	434	38	1.5	945	9	3.5	47	1.5
<i>Tropocyclops prasinus mexicanus</i>	0	--	0.0	0	--	0.0	--	0.0
Total Cyclopoids	1,157	0	4.0	808	8	3.0	13	5.2
Total Cyclopoids	9,531			9,982			8,477	
Calanoid copepods								
Immature copepodids								
<i>Diaptomus ashlandi</i>	7,420	10	25.9	7,177	5	26.2	10	10.7
<i>Diaptomus minutus</i>	333	12	1.2	381	11	1.4	15	0.3
<i>Diaptomus oregonensis</i>	195	37	0.7	282	4	1.0	0	0.4
<i>Diaptomus sicilis</i>	687	16	2.4	594	51	2.2	45	0.3
Total Diaptomids	166	6	0.6	15	141	0.1	0	0.0
Total Diaptomids	8,801			8,449			1,903	
<i>Epischura lacustris</i>	36	85	0.1	46	95	0.2	6	138 0.0
<i>Eurytemora affinis</i>	0	--	0.0	0	--	0.0	6	138 0.0
<i>Limnocalanus macrurus</i>	36	29	0.1	0	--	0.0	0	0.0
Harpacticoid copepods								
<i>Canthocamptus</i> sp.	0	--	0.0	0	--	0.0	0	0.0
Cladocerans								
<i>Bosmina longirostris</i>	145	0	0.5	305	28	1.1	303	47 1.9
<i>Eubosmina coregoni</i>	4,845	11	16.9	5,196	6	19.0	1,606	33 9.9
Total Bosminidae	4,950			5,401			1,909	
<i>Ceriodaphnia quadrangula</i>	0	--	0.0	0	--	0.0		
<i>Chydorus sphaericus</i>	29	0	0.1	30	0	0.1	22	142 0.1
<i>Daphnia galeata mendotae</i>	3,153	4	11.0	1,295	28	4.7	921	17 5.7
<i>Daphnia retrocurva</i>	521	0	1.8	823	5	3.0	247	26 1.5
<i>Diaphanosoma leuchtenbergianum</i>	14	143	0.1	30	142	0.1	56	28 0.3
<i>Holopedium gibberum</i>	723	0	2.5	686	9	2.5	1,280	10 7.9
<i>Leptodora kindtii</i>	7	138	0.0	0	--	0.0	0	-- 0.0
<i>Polyphemus pediculus</i>	0	--	0.0	0	--	0.0	0	-- 0.0
Total				15*	141*	0.1*	6*	138* 0.0*
Rotifers								
<i>Asplanchna</i> sp.	43	47	0.2	198	11	0.7	22	142 0.1
TOTAL	28,594			27,345			16,236	
TOTAL w/o nauplii	27,885			27,055			14,855	
Diversity Index	2.18			2.04			1.89	
				* <i>Alonella</i> sp.			* <i>Alona</i> sp.	

on 11 June 1972 surface temperatures at all stations were greater than 4°C. On the survey date 25 April 1973 (yet to be reported) a thermal bar was present, but it had already moved offshore beyond the 7-mile limits of our sample grid. It thus appears that, within the area we are investigating, thermal bars are regular but short-lived phenomena.

Stoermer (1968) has reported distinct phytoplankton assemblages on either side of the thermal bar. These differences he attributed to the pooling of nutrient-rich runoff water inside the bar. It is less likely that the effects of temporary enrichment could be detected in the populations of zooplankton crustaceans since these animals occupy a higher position in the food chain and increase their numbers more slowly. However, responses to water temperature changes would be more immediate, hence the consequences of earlier warming inshore may be noticeable. Data from the surveys of April 1971 and May 1972 indicate the following: 1) Copepods are reduced in numbers inside the thermal bar (ca. 1000/m<sup>3</sup> versus ca. 5000/m<sup>3</sup> offshore). 2) Nauplii are more plentiful in the inshore water (ca. 3000/m<sup>3</sup> versus ca. 500/m<sup>3</sup> outside the bar). 3) Highest concentrations of zooplankton are found at stations located closest to the thermal bar (Fig. 4). We speculate that these results are attributable to selective predation of the larger copepods by fish moving into the inshore regions, to increased hatching of eggs in the warmer water, and to a possible tendency for upward-swimming zooplankters to become concentrated in regions where there is convergence and downwelling of the water.

#### *The Survey of 9 July 1971*

Of the four surveys, highest numbers of zooplankton were found in July--several stations having over 100,000 individuals per cubic meter. These numbers are equivalent to those found in July 1972 but are higher than those reported for July 1970. The difference can be attributed to a change from the #5-mesh net used in 1970 to the #10-mesh net used thereafter. Since *Bosmina longirostris* accounts for upwards of 50% of the assemblage during this part of the year, and since the 282  $\mu$  apertures of a #5 net are larger than the length of a first-instar *Bosmina*, more complete catches of this species probably account for most of the difference. Examination of Figure 4 reveals a random and fairly even spacial distribution of total zooplankton abundances. However, if the totals are broken down into their three principal

components--cyclopoids, diaptomids, and Bosminidae patterns can be seen. *Bosmina* was most abundant at the inshore stations, at some of which it exceeded  $100,000/m^3$  and comprised over 80% of the crustaceans collected. Both *Diaptomus* and *Cyclops* were taken in greatest numbers at the offshore stations.

Of the *Diaptomus* species, *D. minutus* was most abundant, while among the cyclopoids, only *Cyclops bicuspidatus thomasi* was common. We found the other principal cyclopoid, *Tropocyclops prasinus mexicanus*, in small numbers. Signs of reproductive activity were noted in *Cyclops*, *Tropocyclops*, *Diaptomus ashlandi*, *D. minutus*, and *D. oregonensis*. *Limnocalanus* was present at the deeper stations and a few *Eurytemora affinis* were found in most samples, but *Epischura lacustris* was absent from all stations visited in this survey.

Aside from *Bosmina*, the only other abundant cladoceran was the large predator, *Polyphemus pediculus*, whose numbers averaged  $240/m^3$ . We found roughly equal numbers of the large predaceous rotifer, *Asplanchna*, at the inshore and the offshore stations--ca.  $1800/m^3$ .

#### *The Survey of 2 September 1971*

Zooplankton counts averaged  $70,000/m^3$  in September, 40% higher than September of 1972. Inshore-offshore differences were pronounced on this date, with all copepod species more abundant at the deeper stations and most of the cladoceran species more abundant inshore.

As in 1972, immature cyclopoid and calanoid copepods were a substantial part of the September fauna. They outnumbered adults by more than 5 to 1. Among the cyclopoids, *Tropocyclops* was nearly as abundant as *Cyclops* on this date (ca.  $2000/m^3$ ); and of the diaptomid adults, *D. ashlandi* was again (as in April) the most common species. Both *D. ashlandi* and *D. oregonensis* were reduced in abundance inshore, but this does not appear to have been true for *D. minutus*. The hypolimnetic species *D. sicilis* and *Limnocalanus* were absent from the survey area during September--possibly the result of a deepened thermocline. Highest numbers of *Eurytemora* (ca.  $25/m^3$ ) and *Epischura* (ca.  $70/m^3$ ) were recorded on this date.

The September collections were most notable for their richness in cladocera. *Bosmina* abundances averaged  $15,000/m^3$ , a reduction from averages of  $57,000/m^3$  in July but not the striking crash seen in 1972. Around 700

*Eubosmina* per  $m^3$  were collected at most stations. Both because of its large size (ca. 1 mm) and its large numbers (ca. 13,000/ $m^3$ ), *Daphnia retrocurva* can be said to have been the dominant September organism. The other major *Daphnia* species, *D. galeata mendotae*, occurred in much smaller numbers. *Daphnia* were the only cladocerans with higher abundances at offshore stations (combined average of 18,000/ $m^3$  at stations greater than two miles from shore, 11,000/ $m^3$  inshore). *Ceriodaphnia*, *Diaphanosoma*, *Holopedium*, *Leptodora*, and *Polyphemus* had higher abundances on September 2 than on the other three survey dates. A particularly strong *Holopedium* bloom appears to have been in progress, for we found more of this species (ca. 5000/ $m^3$  inshore, 2100/ $m^3$  offshore) than on any date in 1972.

*Asplanchna* was also at maximum numbers on this date--ca. 3000/ $m^3$ , contrasting with an abundance of 500/ $m^3$  on 8 September 1972.

#### *The Survey of 8 November 1971*

Smaller zooplankton populations were present in the cooler November waters. Total abundances were around 31,000 individuals per cubic meter on this date, a figure closely approximating what we found in November 1972 (28,000/ $m^3$ ). All copepod species with the exception of *Diaptomus oregonensis* appeared to have declined in number, and all cladoceran species except *Eubosmina coregoni* and *Daphnia galeata mendotae* were markedly reduced from their September abundances.

As in 1972, over 50% of the fauna consisted of immature cyclopoid and calanoid copepodids. Immatures generally outnumbered their adult conspecifics by 8 to 1. As in September, *Tropocyclops* was nearly as abundant as *Cyclops*; but unlike the other three survey dates, cyclopoids were equally abundant inshore and away from shore. Both adults and immatures of *Diaptomus* continued to show a preference for the deeper offshore water. *Diaptomus oregonensis* was the most numerous diaptomid, its fall maximum repeating the October and November peaks noted for this species in 1972. *Eurytemora* was virtually absent at this time, while *Epischura* had an abundance of ca. 35/ $m^3$ . These observations are, again, repetitions of what we found in 1972. *Limnocalanus* was present at the offshore stations but missing from most samples taken inshore.

We caught more cladocera in 1971 than in 1972, but in both cases the

numbers represent a severe reduction from catches in late summer. Exceptions were *Eubosmina*, whose populations had increased to ca. 5000/m<sup>3</sup> by November, and *Daphnia galeata m.*, whose populations stood at 1800/m<sup>3</sup>. These species seemingly take advantage of the respective declines of *Bosmina longirostris* and *Daphnia retrocurva*. In the falls of 1970 and 1972, the Bosminidae were concentrated near shore, but no evidence of this can be seen in their horizontal distribution in November 1971. The only other cladoceran species found in substantial numbers was *Holopedium gibberum*, survivors of the September bloom numbering 1200/m<sup>3</sup>. Ehippial females of *Bosmina*, *Eubosmina*, and the two species of *Daphnia* were frequently encountered in the November samples.

Very few *Asplanchna* were found (ca. 80/m<sup>3</sup>), and those we saw carried resting eggs.

#### A.7 STUDY OF BENTHIC ORGANISMS

The following interim report concerns species-level data on macrozoobenthos near the Cook Plant for 1971. The April and July data herein have been presented in Part XIII of this series (Tables 47, 48, 49 and 52 and Figs. 42-44; Mozley 1973a) in several summarized forms. Also, data at the major taxa level were presented in Tables 40-43 for all 1971 benthos surveys. This report includes the basic data tables for April, July and November surveys at the lowest achievable taxonomic level. September 1971 samples are in storage if species-level analysis should be necessary.

#### METHODS

In 1971, one cast of the ponar grab-sampler was made at each of the 46 stations to obtain samples. Each cast collected sediments from a surface area of about 1/18 m<sup>2</sup> (552 cm<sup>2</sup>) to a depth of 1 to 10 cm depending on the penetrability of the substratum. In predominantly silty or finer sediments the grab was filled to overflowing, but in compacted fine sands the samples were usually 0.5-2.0 liter in volume. No standard bottom sampler does better. The Great Lakes Research Division model of the unmodified ponar (not the Triplex described by Mozley and Chapelsky 1973, use of which began in July

1972) was used consistently.

When samples contained major proportions of sand grains more than 0.5 mm in diameter, the samples were stirred vigorously in a funnel-shaped tub and animals and fine sediments were decanted onto a 0.5-mm mesh screen. Coarser material remained in the tub and was discarded after it had been rinsed to remove all animals. When little or no medium or coarser sand grains were present, the entire sample washed through the sieve. Sieve residues were preserved in buffered formalin.

In the laboratory, animals were picked from the residue, counted by major taxa and transferred to fresh, buffered formalin. For species identification, all animals were recounted. Greater skill and more painstaking procedure resulted in modifications of the original counts, usually by minor fractions of the total. In particular, a revised procedure involving the use of compound microscopes led to changes in estimates of numbers of oligochaetes in the samples. Oligochaetes and chironomid larvae were mounted on microscope slides for species identification. Only representative specimens of each type have been retained for future reference, but unmounted amphipods, fingernail clams (*Sphaeriidae*) and other animals have been kept in storage.

In the April and July surveys the transects 6.4 km (4 miles) north and south of the plant site were not analyzed because they were of only minor interest in view of the time and effort required for species-level analysis. They are beyond the likely extent of plume effects. The November 1971 samples from these transects were analyzed, however, since bad weather forced abandonment of the more distant (11 km, or 7 miles along shore from the plant) reference transects in that month. No samples were available for stations DC-1 or DC-6 in July. Samples from NDC-4-4 and SDC-4-4 were always analyzed because they added significant information about the deepest part of the survey area, which was otherwise sparsely sampled.

Taxonomy of Oligochaeta follows J. K. Hiltunen's unpublished keys (personal communication; Great Lakes Fishery Laboratory, U.S. Department of the Interior, Ann Arbor, Mich.) and Brinkhurst and Jamieson (1971). Taxonomy of *Sphaerium* follows Herrington (1962). Taxonomy of Chironomidae derives from scattered literature, primarily Roback (1957), Černovskii (1949) and Mason (1973), with nomenclature adjusted in conformity with Hamilton et al. (1969). Pennak (1953) was the basis of other identifications.

## RESULTS

Appendix D contains all the species-level data from April, July and November 1971 samples in their present state of analysis. More detailed identification of Mollusca and exact species names for Chironomidae will be possible after special studies. While *Mysis relicta* is not strictly a benthic organism, it is collected in grab samples because of its daytime benthic occurrence. We report data on its abundance separately from other benthos at the end of each table. All further analysis presented in this report derives from these tables or from Part XV in this series (Mozley 1973b) and Mozley and Garcia (1972).

### *New Species*

The addition of new species to the register of zoobenthos near the Cook Plant will doubtless continue for the full term of the project as taxonomic criteria are revised or greater detail is achieved, or simply because any ecosystem contains a large number of very rare, possibly accidental species which gradually come to light as sampling continues. This is evident in the additions which have been made between analysis of the July and November surveys in 1971. A new unpublished key to aquatic oligochaetes of the Great Lakes by K. Hiltunen (Bureau of Sport Fisheries and Wildlife, U. S. Dept. of the Interior, Ann Arbor, Mich.) enabled us to distinguish *Limnodrilus spiralis* from *L. hoffmeisteri*. *Ophidonais serpentina* and *Limnodrilus udekemianus* were rare species, observed for the first time in November 1971. *Piguetella michiganensis* was probably confused with immature Tubificidae without hair chaetae in earlier surveys. A new type of Chironomidae larvae, *Cyptochironomus* sp. 4, appeared in November 1971 for the first time but was represented by only a single individual. As mentioned in a footnote to Part XV in this series (Mozley 1973b), the chironomid reported as *Monodiamesa* cfr. *bathyphila* can be identified positively as *Monodiamesa tuberculata* since publication of Saether's (1973) key to the genus in North America. Review of specimens from all surveys through 1971 showed that only this species was represented in our collections.

### *Variations in Zoobenthos with Depth and Season*

Figures 7-12 illustrate the depth distribution patterns, averaged over all stations, for five of the benthic surveys in 1970 and 1971. September surveys in both years have not been recounted or identified to species, but the samples are being held in storage. The diagrams are based on data from recounts, all of which are published as stated at the beginning of this section. Each station was represented by a single observation. The stations which were reanalyzed from each survey are divided by benthic depth zones, and averages of zoobenthos taken. Table 9 lists the number of observations in each depth zone and month. Since these were preoperational surveys, reference area stations and those near the plant site have been combined in the averages. The only exceptions to arrangement of stations by depth were in cases in which a particular station was deeper in some months and in others shallower than a depth boundary; then the station was consistently placed in the zone corresponding to its depth on a majority of all surveys from July 1970 to April 1972. Appendix tables show the division of stations into benthic depth zones by extra spaces between zones.

TABLE 9. Numbers of observations on which the averages and standard errors in Figures 1-6 are based, by depth zone and month.

Depth zone	July 1970	Nov 1970	Apr 1971	July 1971	Nov 1971
0 (0-7.9 m	5	6	9	8	9
1 (8-15.9 m)	10	12	14	14	12
2 (16-23.9 m)	7	12	12	12	10
3 (24 m or more)	3	5	4	4	5

Figure 7, total animals, illustrates once more (see also Mozley and Garcia 1972, and previous reports in this series) the strong relationship between depth and numbers of macroinvertebrates. Benthic zone 0 contained relatively small numbers of benthic animals. In July 1971 there was about a five-fold increase in average numbers in zone 0, due mainly to small Chironomidae (Fig. 7) and Naididae (Table 10), but there were still only



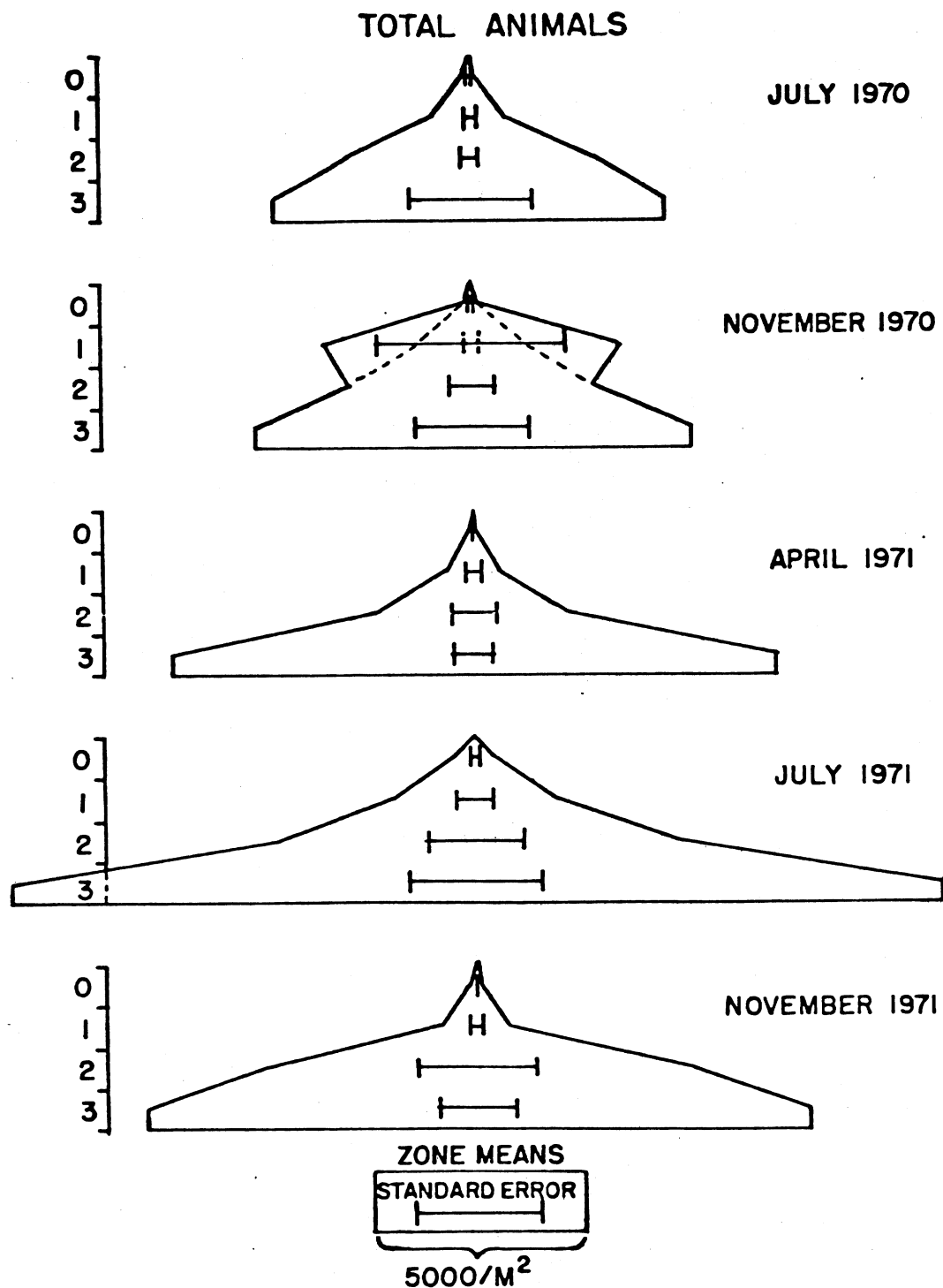


FIG. 7. Mean numbers per m<sup>2</sup> of total animals (benthic macroinvertebrates excluding *Mysis relicta*) by benthic depth zones and seasons. Width of kite diagrams at midpoint of each vertical interval is proportional to mean numbers. Scale is given in inset. See Table 1 for zone depth intervals and numbers of observations for each mean. Dotted lines on November 1970 diagram indicate mean and standard error for benthic zone 2 excluding anomalous sample from station SDC-7-3.

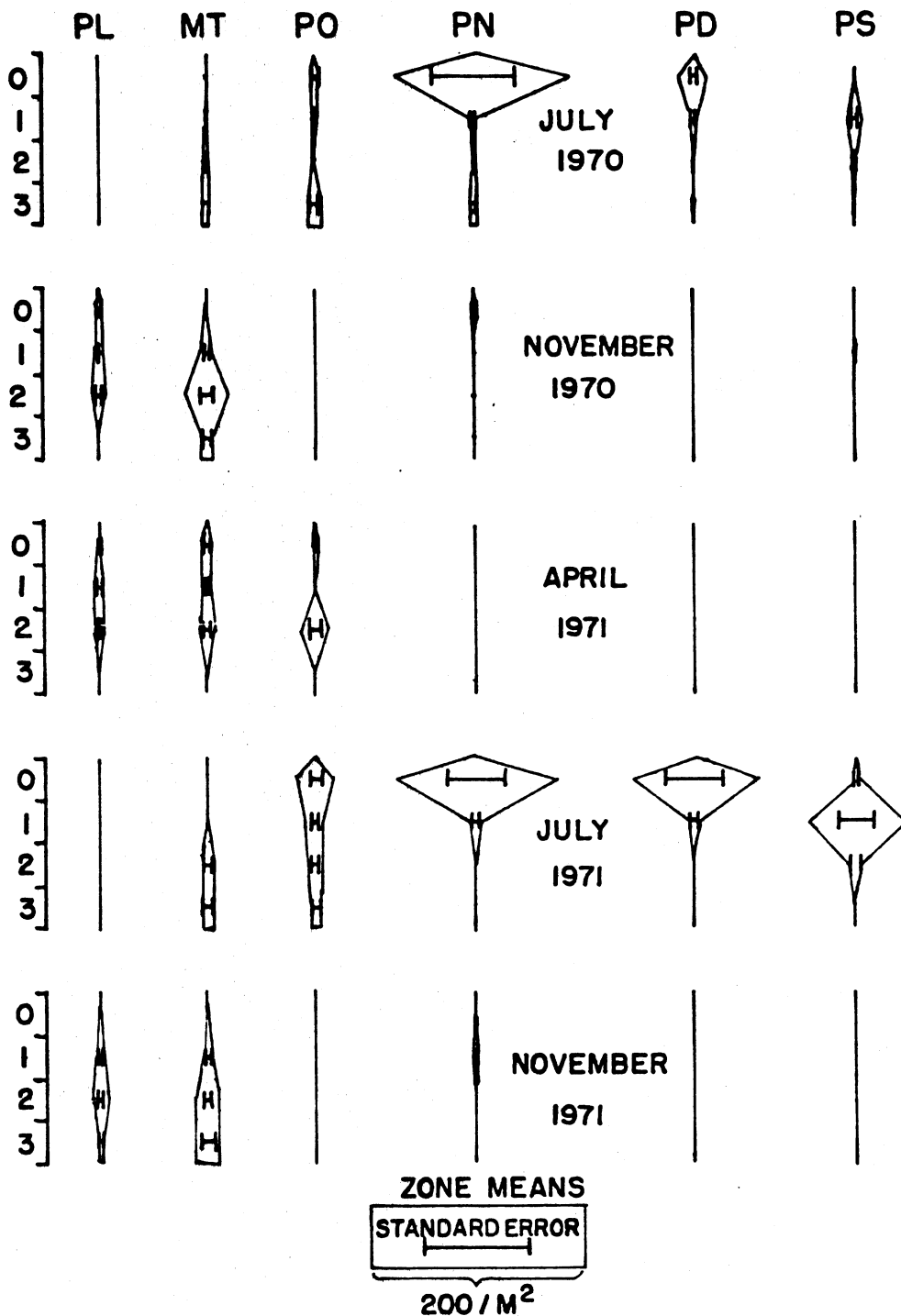


FIG. 8. Mean numbers per  $m^2$  of minor Chironomidae by depth and season. PL = *Potthastia* cfr. *longimanus*, MT = *Monodiamesa tuberculata*, PO = *Paracladopelma* cfr. *obscura*, PN = *Paracladopelma nereis*, PD = *Parachironomus* cfr. *demeijerei*, PS = *Poly-pedilum* cfr. *scalaenum*. Format as in Figure 1. Scale is given in inset.

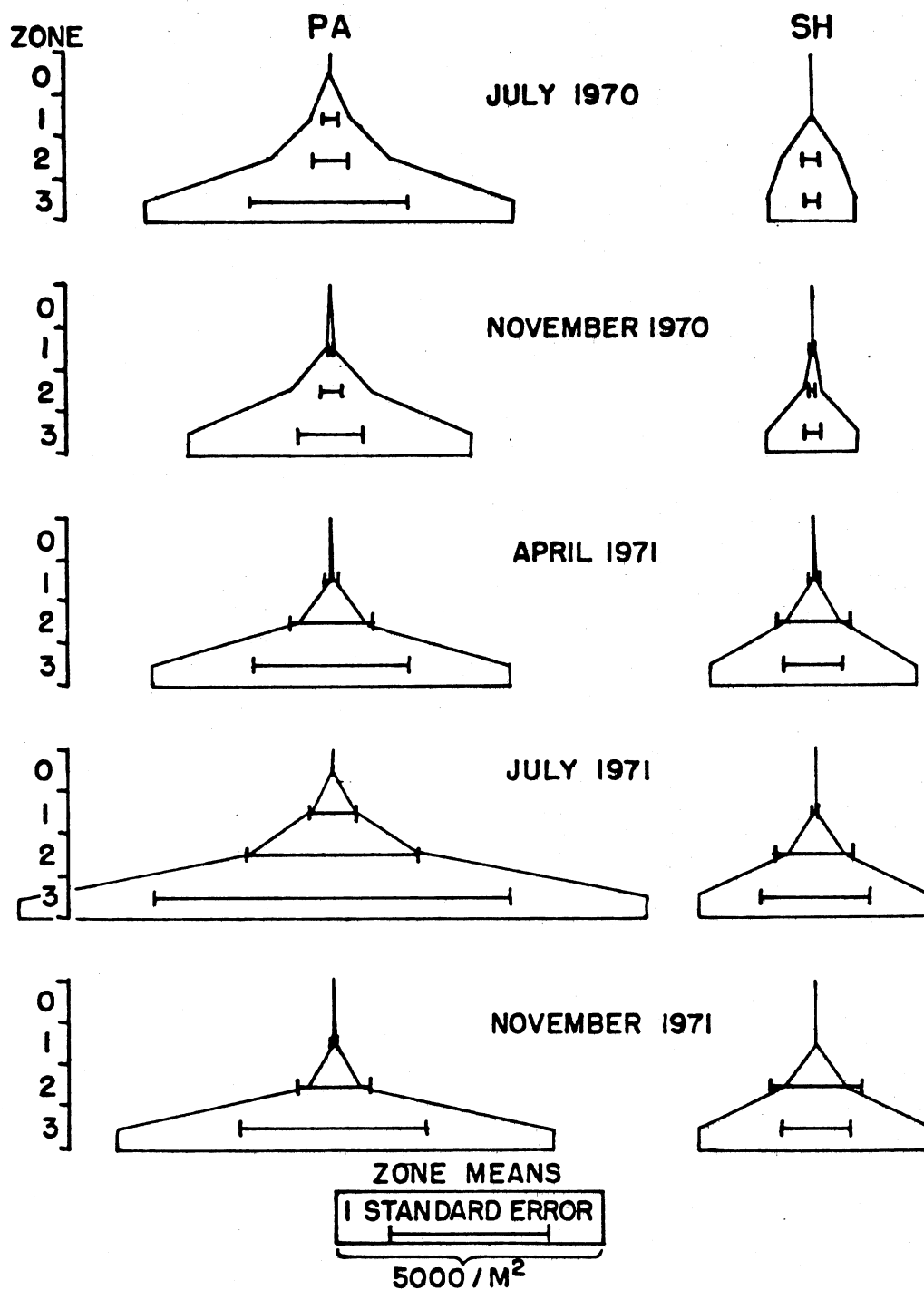


FIG. 9. Mean numbers per m<sup>2</sup> of *Pontoporeia affinis* (PA) and *Stylodrilus heringianus* (SH) by depth and season. Format as in Figure 1.

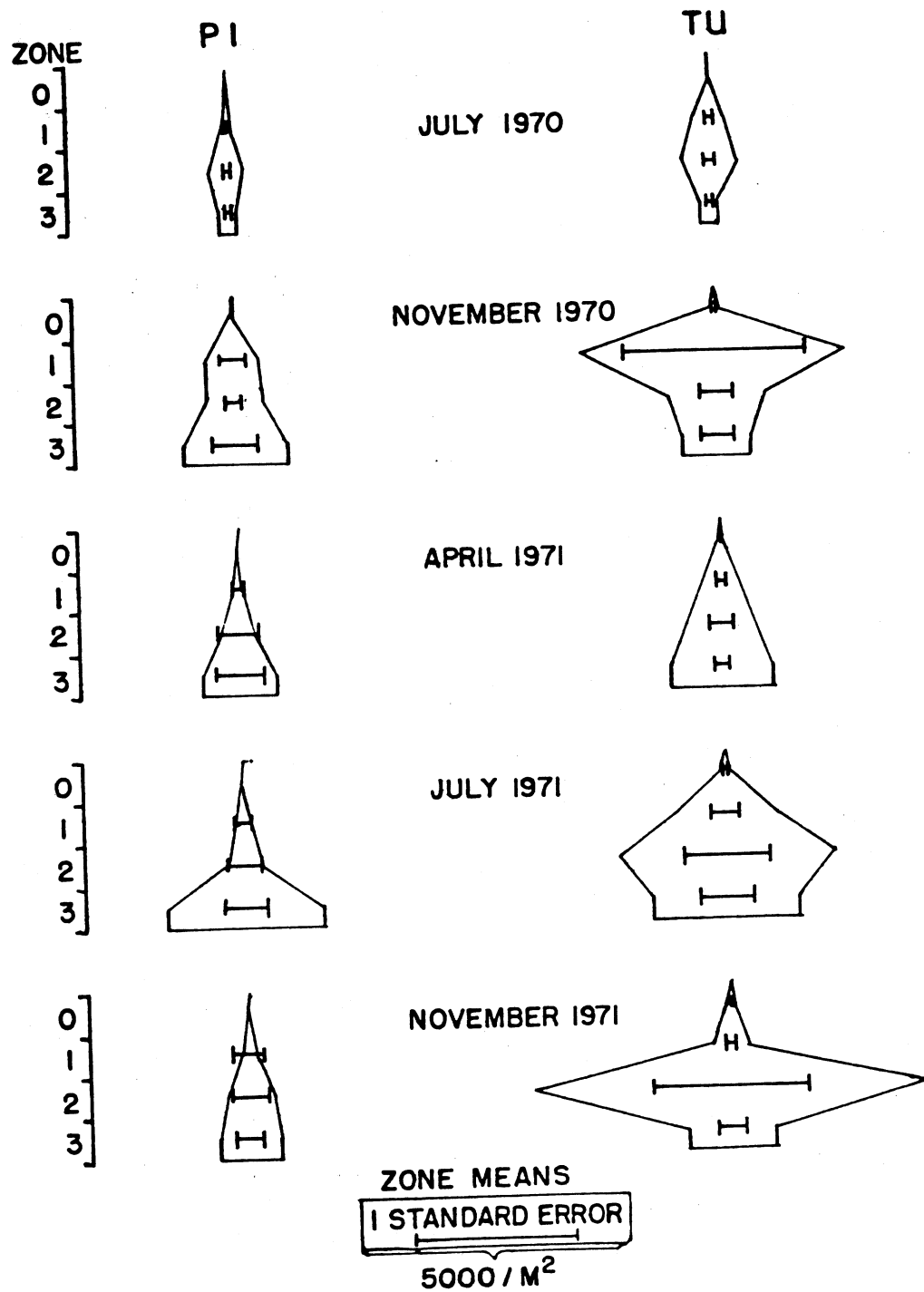


FIG. 10. Mean numbers per  $m^2$  of *Pisidium* (PI) and Tubificidae (TU) by depth and season. Both taxa include several species. Format as in Figure 1. Scale given in inset.

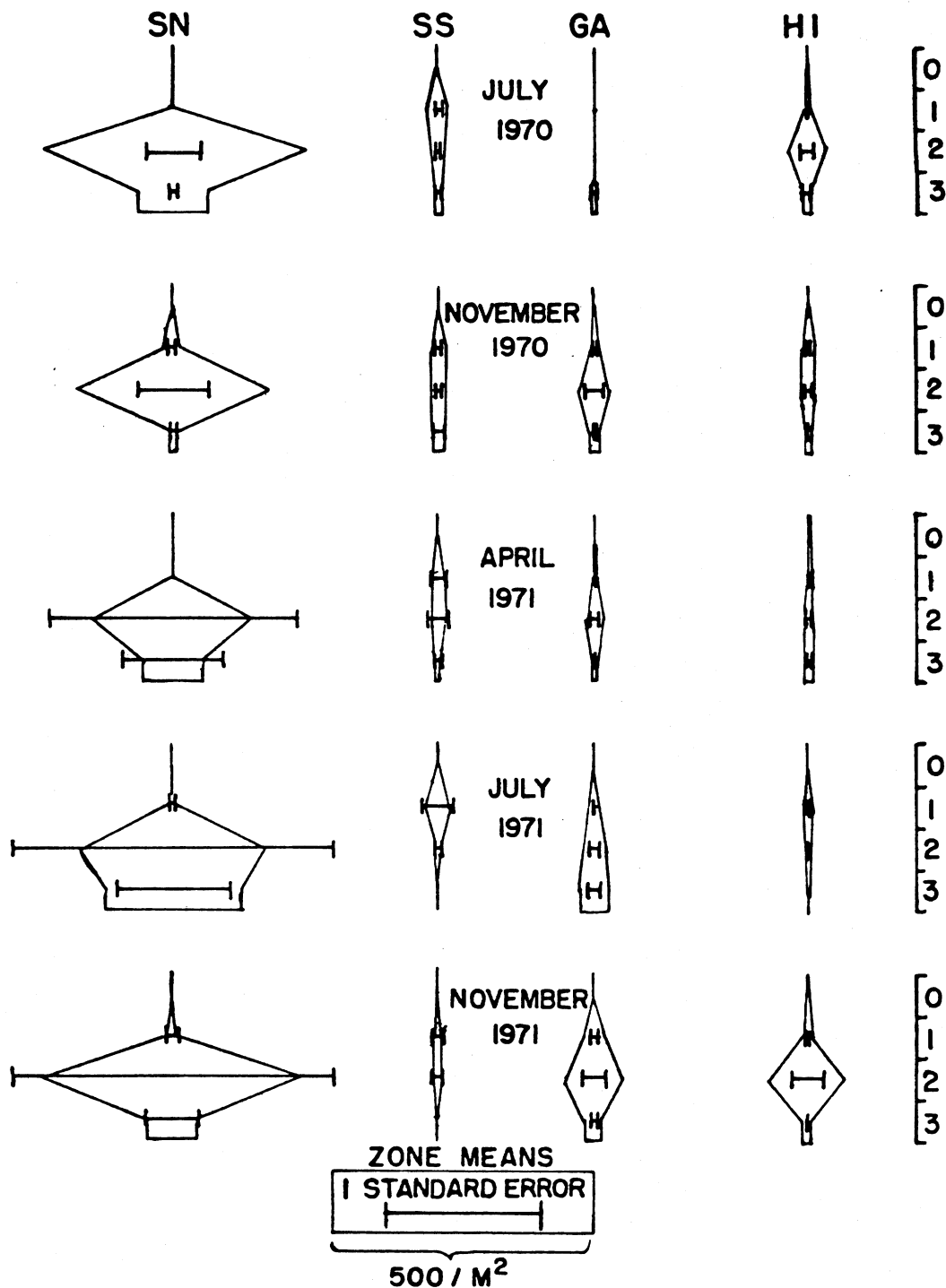


FIG. 11. Mean numbers per  $m^2$  of *Sphaerium nitidum* (SN) and *Sphaerium striatinum* (SS), which are sphaeriid clams, total Gastropoda (GA) (at least 3 species) and total Hirudinea (HI, at least 4 species) by depth and season. Format as in Figure 1. Scale given in inset.

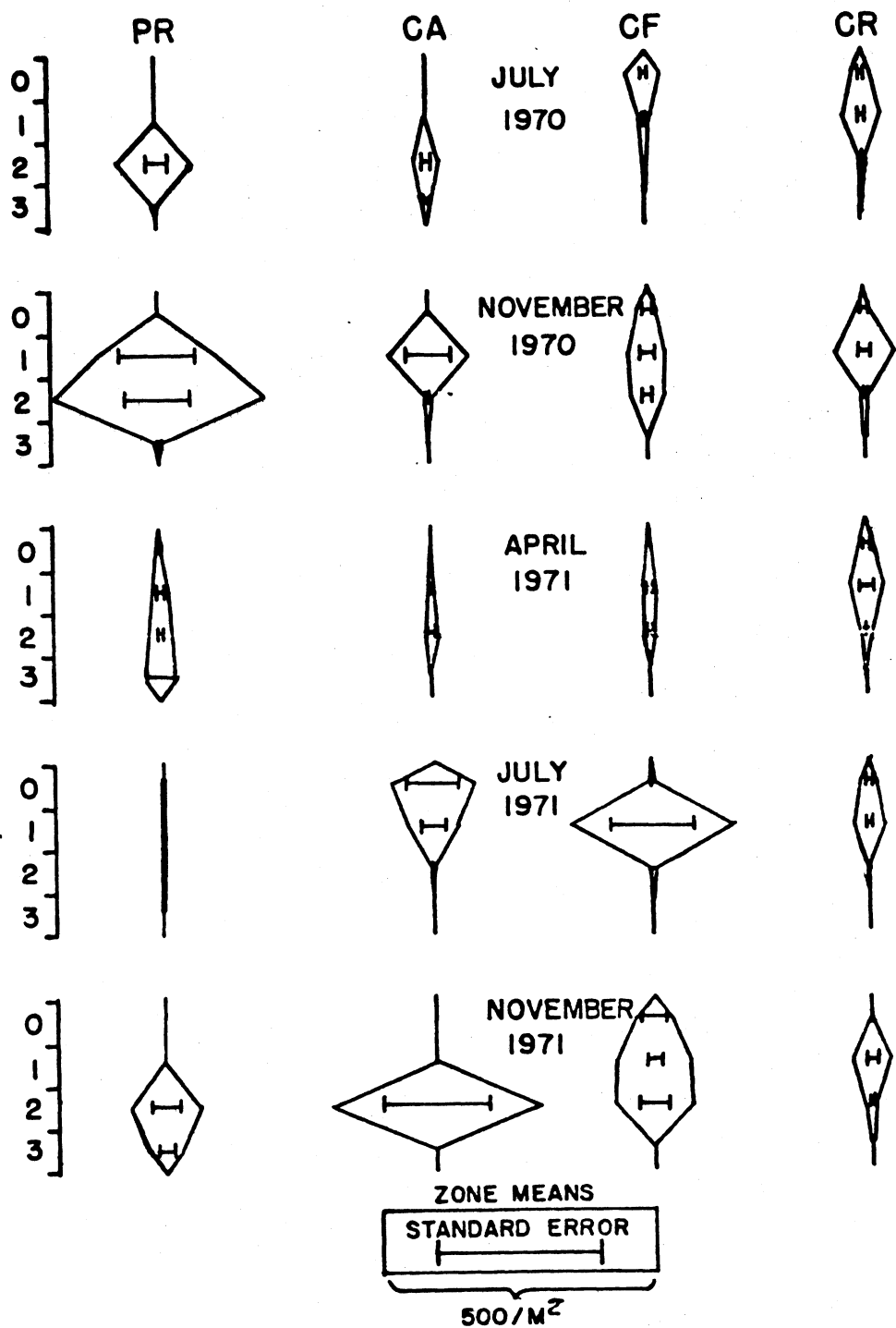


FIG. 12. Mean numbers per  $m^2$  of large Chironomidae by depth and season. (PR = *Procladius* sp., CA = *Chironomus anthracinus*-group, CF = *Chironomus fluviatilis*-group, CR = *Cryptochironomus* sp. 2. Format as in Figure 1. Scale given in inset.

TABLE 10. Average numbers of the more common Naididae by benthic zones in July and November 1971 with standard errors.

Species	Month	Benthos depth zones			
		0	1	2	3
<i>Nais</i> spp.	July	63.4 $\pm$ 37.5	20.6 $\pm$ 10.2	3.0 $\pm$ 3.0	0
	Nov.	absent			
<i>Uncinaiis uncinata</i>	July	36.4 $\pm$ 27.5	49.1 $\pm$ 33.2	4.5 $\pm$ 4.5	0
	Nov.	4.0 $\pm$ 4.0	24.1 $\pm$ 7.0	0	0
<i>Chaetogaster</i> sp.	July	147 $\pm$ 122	50.5 $\pm$ 13.9	99.7 $\pm$ 35.0	4.5 $\pm$ 4.5
	Nov.	absent			
<i>Piguetella michiganensis</i>	July	not identified			
	Nov.	12.1 $\pm$ 10.1	109 $\pm$ 27.6	1.5 $\pm$ 1.5	0

about 1000 animals/m<sup>2</sup>. The July 1971 survey also indicated higher numbers in deeper zones in summer than in spring or fall. The lack of similar increases in July 1970 calls into question its year-to-year regularity, but counts in July 1970 may be underestimates of the total (see Mozley and Garcia 1972). If so, summer would appear to be the season of greatest abundance. The one instance in which zone 1 had a higher average than zone 2, November 1970, was produced by a single sample (SDC-7-3) with an extraordinarily large number of Tubificidae. If this sample is excluded, the diagram for November 1970 looks much more like the others (dotted lines). Standard errors of the means for total animals tended to be smaller in proportion to the means than for most individual taxa.

Figure 8 shows the extreme seasonal dependence on the abundance of small Chironomidae in benthic zones 0 and 1. Note that the scale of the diagrams has been expanded considerably in relation to Figure 7. *Paracladopelma nereis* and *Parachironomus* cfr. *demeijerei* were abundant only in July in benthic zone 0 while *Polypedilum* cfr. *scalaenum* occurred almost exclusively in benthic zone 1 in July. *Paracladopelma* cfr. *obscura* had a broad depth distribution but was not found in either November survey. *Potthastia* cfr. *longimanus* was absent from both July surveys, and *Monodiamesa tuberculata* was more abundant in November samples than in those taken in other months. Since the terrestrial

life phase of Chironomidae lasts only a few days, these larvae must be in the lake at all seasons. Probably they are too small to be retained in the sieves or are in diapause in egg or early larval stages except for seasons in which they appeared in the samples.

Figure 9 shows the patterns of two of the most numerous kinds of zoobenthos in the survey area, *Pontoporeia affinis*, the amphipod, and the aquatic worm *Stylodrilus heringianus*. Both increased greatly in number with increasing depth, and largely determined the pattern shown by total macrobenthos. *P. affinis* was more numerous in July than in April or November of the same year, and means in July and November 1971 were greater than those in the same months of 1970 in zone 3. These differences were not statistically significant however. *S. heringianus* was also more abundant in 1971 than in 1970 and again primarily in benthic zone 3. *S. heringianus* was essentially absent from depths less than 16 m (benthic zones 0 and 1) while *P. affinis* was numerous in benthic zone 1 only in July of both years.

Figure 10 shows the bathymetric and seasonal patterns for the other two numerically dominating taxa, the fingernail clams of the genus *Pisidium* (several species) and the diverse aquatic worms of the family Tubificidae. The only obvious generalization is that neither taxon is very numerous in samples from benthic zone 0. *Pisidium* spp. were most abundant in benthic zone 3 except in July 1970, when sample-picking procedures for the benthos surveys had not been completely standardized. It is possible that very small *Pisidium* (probably *P. conventus*) which are very abundant in deeper samples were overlooked in that first month. The most numerous identifiable Tubificidae were *Limnodrilus hoffmeisteri*, *Peloscolex freyi* and *Potamothrix moldaviensis* in most samples (see Appendix D), but *Tubifex tubifex*, other *Limnodrilus* species and occasionally *Potamothrix moldaviensis* or *Aulodrilus americanus* contributed substantially to the total numbers for this family. Large proportions of the Tubificidae were unidentified immatures, so that it was not possible to represent depth distribution or seasonal fluctuations of individual species. Both means and standard errors for Tubificidae were largest in one of the two intermediate benthic zones (zone 1 or 2) with the exception of April. This was due to a tendency for very dense populations of Tubificidae to occur at a few stations between 8 and 24 m on every survey (e.g., SDC-7-3 in November 1970).



Figure 11 shows Mollusca other than *Pisidium* and total Hirudinea. *Sphaerium nitidum* was well represented in benthic zone 2 and usually in zone 3 as well, but sample sizes were extremely variable as shown by broad standard errors. There was no detectable seasonal variation in distribution or abundance of this viviparous fingernail clam in 1970-71. Apparent changes in zone 3 were probably due to the irregularity of population densities (Note large standard errors), rather than real changes in population size. The larger but much rarer *Sphaerium striatinum* was present in the three deeper zones in all seasons with little if any seasonal changes in abundance. Gastropoda, which were mostly *Valvata* but included some *Lymnaea*<sup>and</sup> *Bulimus* (= *Bithynia*) appeared to have increased in 1971 over 1970 and to have been most numerous in benthic zone 2 in November, but their numbers were still very low. Hirudinea were composed mostly of *Helobdella stagnalis*. They were generally very consistent in occurrence and rare, but apparently increased in benthic zone 2 in July 1970 and November 1971.

Patterns for the larger kinds of Chironomidae larvae are shown in Figure 12. Although *Procladius* and *Chironomus* larvae were occasionally present in moderate numbers, there was no repeated seasonal pattern in their depth distribution and occurrence from year to year. The same months in the two successive years had different depth distributions and densities of each kind of larva. Perhaps multiple species with two-year overlapping life cycles in each of the types of larvae produced this irregularity. *Cryptochironomus* sp. 2, however, was more consistent. It was always most abundant in benthic zone 1 and its numbers changed little from season to season.

#### *Size and Sex Frequencies in Pontoporeia affinis*

Figure 13 provides size and sex frequency histograms for *P. affinis* in the major surveys of July and November 1970 and April, July and November 1971. Unfortunately a previous presentation of these data (Mozley 1973a, Fig. 44) has the benthic zones mislabelled, and benthic zone 3 was divided into samples from greater and less than 40 m depths. The present Figure 13 is based on the same data but arranged strictly according to benthic zones. Benthic zone 0 is omitted from the figure because too few amphipods were present (<30) to indicate population size/sex frequencies. The November 1971 data are shown in Figure 13 for the first time.

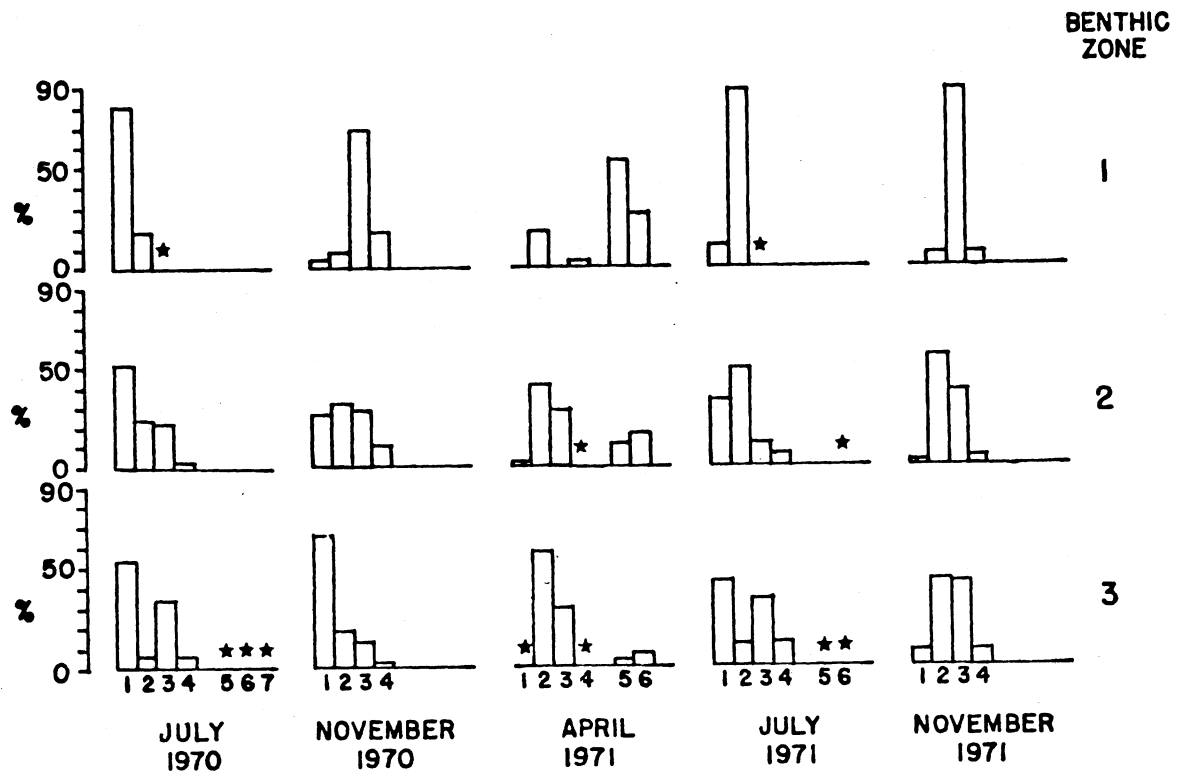


FIG. 13. Percentages of *Pontoporeia affinis* populations in size and season. Star = trace. Classes: 1 = 3 mm long, 2 = 3-4.9 mm long, 3 = 5-7 mm long, 4 = >7 mm long but immature, 5 = gravid females, 6 = spent or postreproductive females, 7 = mature males. Benthic zone 0 was omitted due to insufficient specimens of *P. affinis* from that zone.

In benthic zone 1, *P. affinis* appears to mature in one year. Maturation and mating must have occurred in winter, for by April 1971 most of the population were females in the process of releasing their young from the brood chamber. The very smallest size class of *Pontoporeia* apparently escaped through the sieve, since young in numbers corresponding to the large proportion of "spent" females did not appear in the samples. By July 1971 most of the young had grown to lengths over 3 mm, but in the previous July most were still shorter than 3 mm. In November 1971 most had grown to lengths over 5 mm and were approaching readiness for maturation; the two November surveys showed no particular differences in size distribution. In benthic zone 3, the *P. affinis* populations apparently required two years to mature and reproduce. Over half the population was still in the smaller size classes

(<5 mm) in April 1971, although a few females were releasing young. The young released in the deeper zones in April were apparent in July in the smallest size class, while those in zone 1 had reached lengths of 3-5 mm. A second mode in the size frequency distribution was present at 5-7 mm at the same time, presumably representing young of 1970. As in zone 1, the *P. affinis* young of the year seemed to grow faster in 1971 than in 1970, but the differences showed up in November rather than July. Benthic zone 2 is intermediate between zones 1 and 3 in the changing patterns of *P. affinis* size/sex frequencies. Some individuals may manage to mature in one year, while others require two years. Mature males were present at a very low percentage in only one month, July 1970. The males die soon after midwinter reproduction, while females live several months more to brood their young. Males were observed in the intake forebay of the Cook Plant during early pump trials in January 1973 (Mozley 1973a). The average abundance of *Pontoporeia* in zone 1 (Fig. 9) shows large proportional reductions of the population between July and November in both 1970 and 1971. This may be due to mortality of very young individuals, or possibly migration to deeper zones as the depth of the thermocline increases in autumn.

#### *Tubificidae* Maturation

As pointed out above, a large proportion of the Tubificidae was unidentifiable immatures. The immatures which had hair chaetae seemed to be attributable entirely to the species *Tubifex tubifex* since no other species with hair chaetae has been found among mature specimens. A report of *Ilyodrilus templetoni* (Mozley 1973a, Table 48), after more detailed study, proved erroneous. Immatures without hair chaetae corresponded to at least 8 species (see Appendix D). The proportion of identifiable matures in the combined total of matures and immatures of these 8 species was higher in July in both 1970 and 1971 (Table 11) but mature individuals were present in all seasons. November 1971 is notable for the extremely low proportions of matures. The term "mature," as used here, refers to Tubificidae with well-developed penis sheaths or spermathecal chaetae. Many specimens in November 1971 had enlarged clitellar regions, and were obviously mature, but had no identifiable chitinous sexual appendages. Abundance and maturity data are presently insufficient to determine their growth or reproduction rates or seasonality of their life

TABLE 11. Percentages of Tubificidae which were mature in surveys of 1970 and 1971. Only species which lacked hair chaetae and could not be identified in the immature stages are included. \* = insufficient specimens (<50).

	Benthic depth zone			
	0	1	2	3
July 1970	*	55	65	86
November 1970	11	42	22	22
April 1971	40	23	29	27
July 1971	55	72	74	67
November 1971	*	3	2	5

cycles. There is only some indication of intensified reproductive activity in summer and autumn.

#### DISCUSSION

These first five surveys have revealed several important facts about benthic communities in Lake Michigan adjacent to the Cook Plant, facts which are relevant to interpretation of apparent operational effects in years to come. Many of them were unknown or inadequately understood prior to these surveys. Other results merely confirm information derived from previous studies in Lake Michigan or in other Great Lakes. This latter information includes a tendency for increases in abundance with increasing depth near shore and the overall taxonomic composition in the deeper zones. The first area of new information is the difference between benthic zone 0, or depths less than 8 m, and deeper zones. The zoobenthos is dominated by Chironomidae of several species, and more typical Great Lakes species are rare, such as *Pontoporeia affinis*, various Tubificidae and *Pisidium* spp. Total macrobenthos numbers per m<sup>2</sup> are very low in relation to numbers in deeper zones. Seasonal changes in the character of the fauna are large, especially in mid-summer. Small Chironomidae larvae and possibly certain Naididae become common in summer, but are absent or very rare in other seasons. While some of the Chironomidae in zone 0 are also common in deeper zones, a few kinds of larvae occur primarily in this zone (*Paracladopelma nereis* and *Parachironomus* ctr. *demeijerei*). This is the zone into which the Cook Plant will discharge

its heated effluent. Differences in species between this and deeper zones indicate that the shallow water zoobenthos may be adapted to broader thermal fluctuations and less stable substrates than the typical Great Lakes benthic fauna, *i.e.* *Pontoporeia*, *Stylodrilus*, and various Sphaeriidae.

A second consideration is the year-to-year differences in numbers of several species. Figures 7-12 show especially large fluctuations in large Chironomidae (Fig. 12) and Tubificidae (Fig. 10). *Pontoporeia* seems to have been more numerous and to have grown faster in zones 1 and 3, in 1971 than in 1970 (Figs. 9 and 13). Means of *Stylodrilus* were higher in 1971 as well. Preoperational studies have continued and even intensified in 1972 and 1973, so that the more common types of year-to-year fluctuations should be distinguishable from changes due to plant operation. Statistical approaches to this problem are also underway as exemplified by Part XVIII in this report series (Johnston 1973).

Large statistical fluctuations in the data from shallower benthic depth zones particularly will also make detection of change more difficult. The 1973 annual report in this series (Seibel and Ayers 1974) deals with this issue in more detail, including presentation of an intensive sampling experiment conducted in April 1973 to ascertain the effects of replication at stations and within regions of the survey area on the precision of numerical estimates. Subsequent to April 1972, replication has been performed at each station on all surveys. Subdivision of the survey area into benthic depth zones has been discussed at some length in earlier reports (Mozley and Garcia 1972; Mozley 1973a and b) and the bases for establishment of this approach have not changed with the addition of further data. The unique features of zone 0 were discussed above. Zone 1 is characterized by a large variety of species, and increased total abundance over zone 0. Zone 2 is characterized by the appearance of large populations of *Pontoporeia*, *Stylodrilus* and *Sphaerium nitidum*. Its upper boundary is particularly well marked by increases in the numbers of *Pontoporeia* relative to zone 1 in April and the two Novembers; *Pontoporeia* is more common in zone 1 in the two Julys. Subdivision in this way helps reduce some of the numerical variation in zoobenthos over the survey area by focusing on more homogeneous subareas, and provides a system for combining the single observations per station in earlier surveys to obtain estimates of the sample size variance (see also Johnston 1973).

Treatment of the data in this report has been descriptive and intuitive, *i.e.*, no attempt is made here to apply statistical tests to the conclusions about pattern or differences. This is because the sampling design by which the data were obtained was based on the expectation that detailed statistical analysis would not be necessary. We now recognize that a more careful, statistical approach to analysis is needed, and have been engaged in alterations of design and procedure since 1972. The plan for statistical treatment of 1970-71 data has been presented in Part XVIII of this series (Johnston 1973). A preliminary discussion of alterations in sampling design and analysis which were begun in 1972 has already been presented (Mozley 1973a).

#### REFERENCES

- Brinkhurst, R. O. and B. G. M. Jamieson. 1971. Aquatic Oligochaeta of the world. Univ. Toronto Press, Toronto. 860 p.
- Cernovskii, A. A. 1949. Identification of larvae of the midge family Tendipedidae. *In*: E. N. Pavlovskii (ed.), Identification of USSR Fauna No. 31. USSR Acad. Sci. Press, Moscow, 185 p. English edition: E. Lees (Trans.) and K. E. Marshall (ed.), National Lending Lib. Sci. Tech., Boston Spa, Yorkshire, England, 229 p.
- Hamilton, A. L., O. A. Saether and D. R. Oliver. 1969. A classification of the nearctic Chironomidae. Fish. Res. Bd. Canada, Tech. Rep. No. 124, 42 p.
- Herrington, H. B. 1962. A revision of the Sphaeriidae of North America (Mollusca: Pelecypoda). Univ. Michigan Mus. Zool. Misc. Pub. No. 118, 74 p.
- Johnston, E. M. 1973. Effect of a thermal discharge on benthos populations: statistical methods for assessing the impact of the Cook Nuclear Plant. Benton Harbor Power Plant Limnological Studies. Univ. Michigan, Great Lakes Res. Div. Spec. Rep. 44 (Pt. XVIII), 20 p.
- Mason, W. T., Jr. 1973. Introduction to the identification of chironomid larvae. Anal. Qual. Contr. Lab., Nat. Envir. Res. Center, U.S. Environmental Protection Agency, Cincinnati, Ohio. 90 p.
- Mozley, S. C. 1973a. Study of benthic organisms. *In*: J. C. Ayers and E. Seibel, Benton Harbor Power Plant Limnological Studies. Part XIII. Cook Plant Preoperational Studies 1972. Univ. Michigan, Great Lakes Res. Div. Spec. Rep. 44 (Pt. XIII), p. 178-250.
- \_\_\_\_\_. 1973b. Study of benthic organisms. *In*: J. C. Ayers, S. C.

- Mozley and J. C. Roth, Benton Harbor Power Plant Limnological Studies. Part XV: The biological survey of 12 November 1970. Univ. Michigan, Great Lakes Res. Div. Spec. Rep. 44 (Pt. XV), p. 26-63.
- \_\_\_\_\_ and O. Chapelsky. 1973. A ponar grab modified to take three samples in one cast, with notes on ponar construction. Proc. 16th Conf. Great Lakes Res. 1973: 97-99.
- \_\_\_\_\_ and L. C. Garcia. 1972. Benthic macrofauna in the coastal zone of southeastern Lake Michigan. Proc. 15th Conf. Great Lakes Res. 1972: 102-116.
- Pennak, R. W. 1953. Freshwater invertebrates of the United States. Ronald Press, New York. 769 p.
- Roback, S. S. 1957. The immature tendipedids of the Philadelphia area. Monogr. Acad. Nat. Sci. Philadelphia No. 9, 152 p.
- Saether, O. A. 1973. Taxonomy and ecology of three new species of *Mono-diamesa* Kieffer, with keys to Nearctic and Palearctic species of the genus (Diptera: Chironomidae). J. Fish. Res. Bd. Canada 30: 665-699.
- Seibel, E. and J. C. Ayers (eds.). 1974. The biological, chemical, and physical character of Lake Michigan in the vicinity of the Donald C. Cook Nuclear Plant. Univ. Michigan, Great Lakes Res. Div. Spec. Rep. No. 51, 475 p.
- Stoermer, E. F. 1968. Nearshore phytoplankton populations in the Grand Haven, Michigan vicinity during thermal bar conditions. Proc. 11th Conf. Great Lakes Res., p. 137-150.
- Wilhm, J. L., and T. C. Dorris. 1968. Biological parameters for water quality criteria. Bioscience 18(6): 477-481.

# APPENDIX A. PHYSICAL MEASUREMENTS

15 April 1971

<u>Station</u>	<u>DC-1</u>	<u>DC-2</u>	<u>DC-3</u>	<u>DC-4</u>	<u>DC-5</u>	<u>DC-6</u>	<u>NDC-.25-1</u>	<u>NDC-.5-1</u>
<u>Time, EST</u>	1644	1023	1658	1712	1729	1756	1005	0934
<u>Wind Direction</u>	N	Calm	N	N	N	N	Calm	Calm
<u>Wind Speed, knts</u>	2	0	2	2	5	8	0	
<u>Sea Height, ft</u>		0.5					0.5	0.25
<u>Weather</u>	Cloudless Hazy	Cloudless Hazy Warm	Cloudless Hazy	Partly cloudy Hazy	Partly cloudy Hazy	Clear	Cloudless Hazy	Cloudless Hazy Warm
<u>Secchi Disc, m</u>	1.3	1.9	2.0	3.0	3.9	4.8	1.9	1.0
<u>Water Color</u>	Milky yellowish green	Milky green	Slightly milky grey- green	Slightly milky grey- green	Clear pale green	Clear pale grey- green	Milky light green	Yellowish green- brown
<u>Surface Water Temperature, °C</u>	9.5	5.3	6.9	3.6	3.3	2.6	5.5	6.3
<u>Water Depth, ft</u>	20	42	57	66	80	132	41	12
<u>Bottom Type</u>	Brown coarse sand and pebbles with clay inclusion 2" long	Fine brown sand, few pebbles	Slightly silty medium & coarse brown sand	Silty fine brown sand	Fine brown sand over 3/4" grey silt over black silt	1/2" brown silty very fine sand over black sandy silt	Fine brown sand	Fine-to- medium sand

<u>Station</u>	<u>NDC-.5-2</u>	<u>NDC-.5-3</u>	<u>NDC-1-1</u>	<u>NDC-1-2</u>	<u>NDC-1-3</u>	<u>NDC-2-1</u>	<u>NDC-2-2</u>
<u>Time, EST</u>	0950	1942	0907	0851	1926	0815	0805
<u>Wind Direction</u>	Calm	NE	Calm	Calm	NE	S	S
<u>Wind Speed, knts</u>	0	2			3	1	2
<u>Sea Height, ft</u>	0.5		0.25			0.5	0.5
<u>Weather</u>	Cloudless Hazy	Partly cloudy	Clear Warm	Sunny Hazy	Partly cloudy	Clear Cool	Clear Cool
<u>Secchi Disc, m</u>	1.5	1.6	0.9	1.6	2.7	1.0	1.2
<u>Water Color</u>	Milky light green	Slightly milky	Greenish yellowish grey	Greenish yellowish grey	Clear green- grey	Yellowish greenish brown	Greenish yellowish brown
<u>Surface Water Temperature, °C</u>	5.5	6.1	5.8	4.9	3.8	5.6	5.1
<u>Water Depth, ft</u>	27	57	16	41	57	16	25
<u>Bottom Type</u>	Fine brown sand w/ trace of black silt	Silty brown sand over black silt	Coarse brown sand w/ a few pebbles	Fine brown sand	Slightly silty fine brown sand w/ grey silt lumps	Medium- coarse sand, small pebbles	Fine brown sand, trace of black silt



Appendix A, 15 April 1971 continued.

<u>Station</u>	<u>NDC-2-3</u>	<u>NDC-2-4</u>	<u>NDC-4-1</u>	<u>NDC-4-2</u>	<u>NDC-4-3</u>	<u>NDC-4-4</u>	<u>NDC-7-1</u>	<u>NDC-7-2</u>
<u>Time, EST</u>	0833	1901	0740	0720	2013	1828	2141	2130
<u>Wind Direction</u>	SE	NE	S	S	NE	NE	E	E
<u>Wind Speed, knts</u>	2	8	5	9	4	10	4	8
<u>Sea Height, ft</u>	0.5		0.5	0.5				
<u>Weather</u>	Clear	Partly cloudy	Sunny Hazy	Sunny Hazy	Clear	Partly cloudy	Clear	Clear
<u>Secchi Disc, m</u>	1.8	3.5	0.9	0.9		4.2		
<u>Water Color</u>	Yellowish green	Clear green-grey	Yellowish greenish brown	Yellowish greenish brown		Clear green-grey		
<u>Surface Water Temperature, °C</u>	4.7	2.9	7.0	7.0	4.9	2.2	7.5	7.3
<u>Water Depth, ft</u>	53	84	10	19	61	154	21	26
<u>Bottom Type</u>	Fine brown sand w/ clams & shells	Silty fine brown sand	Fine-to-medium brown sand	Fine brown sand	Clean brown medium-fine sand	1 3/4" brown fine-sandy silt over gelatinous grey clay	Coarse brown sand w/ shell pieces	Clean fine brown sand

<u>Station</u>	<u>NDC-7-3</u>	<u>NDC-7-4</u>	<u>NDC-7-5</u>	<u>SDC-.25-1</u>	<u>SDC-.5-1</u>	<u>SDC-.5-2</u>	<u>SDC-.5-3</u>
<u>Time, EST</u>	2115	2100	2040	1038	1109	1055	1625
<u>Wind Direction</u>	NE	NE	NE	Calm	SW	Calm	NNE
<u>Wind Speed, knts</u>	8	8	8	0	1	0	2
<u>Sea Height, ft</u>				0.5		0.5	
<u>Weather</u>	Clear	Clear	Clear	Cloudless Hazy	Sunny Hazy Warm	Cloudless Hazy Warm	Cloudless Hazy
<u>Secchi Disc, m</u>				1.8	1.0	1.9	2.0
<u>Water Color</u>				Milky light green	Milky greenish yellow	Milky light green	Milky yellowish green-grey
<u>Surface Water Temperature, °C</u>	5.7	5.1	3.4	5.8	7.3	5.7	6.1
<u>Water Depth, ft</u>	45	56	77	41	17	28	55
<u>Bottom Type</u>	Fine-to-medium brown sand	Fine brown sand w/ some black silt lumps	3/4" silty fine brown sand over gelatinous grey clay	Coarse brown sand	Medium and coarse brown sand	Silty fine brown sand	Slightly silty fine brown sand

Appendix A, 15 April 1971 continued.

<u>Station</u>	<u>SDC-1-1</u>	<u>SDC-1-2</u>	<u>SDC-1-3</u>	<u>SDC-2-1</u>	<u>SDC-2-2</u>	<u>SDC-2-3</u>	<u>SDC-2-4</u>	<u>SDC-4-1</u>
<u>Time, EST</u>	1125	1140	1610	1229	1220	1201	1551	1326
<u>Wind Direction</u>	Calm	Calm	NE	SW	NE	SW	NNE	Calm
<u>Wind Speed, knts</u>	0		4	1	0-5	2	5	
<u>Sea Height, ft</u>					0.25			
<u>Weather</u>	Cloudless Hazy Warm	Sunny Hazy Warm	Partly cloudy Hazy	Sunny Hazy Warm	Cloudless	Cloudless Hazy Warm	Cloudless Hazy	Cloudless Hazy
<u>Secchi Disc, m</u>	1.1	1.5	2.9	0.7	1.4	2.5	4.0	0.9
<u>Water Color</u>	Milky green	Milky green	Slightly milky green- grey	Yellowish milky green	Milky light yellowish green	Milky green	Pale green- grey	Brownish milky green
<u>Surface Water Temperature, °C</u>	6.3	7.3	3.7	8.1	7.1	5.9	3.2	7.8
<u>Water Depth, ft</u>	15	23	66	14	28	53	76	19
<u>Bottom Type</u>	Coarse brown sand	Fine brown sand	Slightly silty fine brown sand	Clean fine-to- medium brown sand	Fine-to- medium sand, white shell bits, some black silt	Clean fine brown sand	Silty fine brown sand w/ lumps of grey-black silt	Coarse brown sand

<u>Station</u>	<u>SDC-4-2</u>	<u>SDC-4-3</u>	<u>SDC-4-4</u>	<u>SDC-7-1</u>	<u>SDC-7-2</u>	<u>SDC-7-3</u>	<u>SDC-7-4</u>	<u>SDC-7-5</u>
<u>Time, EST</u>	1314	1254	1518	1401	1352	1416	1433	1452
<u>Wind Direction</u>	Calm	NE	NNE	Calm	Calm	N	N	NE
<u>Wind Speed, knts</u>		1	6			1	2	3
<u>Sea Height, ft</u>								
<u>Weather</u>	Cloudless Hazy	Cloudless Hazy	Cloudless Hazy		Cloudless Hazy	Cloudless Hazy		Cloudless Hazy
<u>Secchi Disc, m</u>	1.8	3.0	5.3	1.1	2.0	2.4	2.7	3.9
<u>Water Color</u>	Milky yellowish green	Clear green- grey	Clear grey- green	Milky yellow- green	Milky pale green	Slightly milky green- grey	Slightly milky green- grey	Greenish grey
<u>Surface Water Temperature, °C</u>	7.1	5.1	2.5	7.5	7.1	6.3	5.6	3.8
<u>Water Depth, ft</u>	28	61	105	15	28	52	55	71
<u>Bottom Type</u>	Fine brown sand	Fine silty brown sand w/ grey silt lumps	1" fine brown sand over gelatinous grey clay	Clean medium sand	Fine slightly silty medium sand w/ pebbles	Slightly silty fine brown sand	Clean fine brown sand	Silty fine brown sand w/ large black silt lumps

Appendix A continued, 9 July 1971.

<u>Station</u>	<u>DC-2</u>	<u>DC-3</u>	<u>DC-4</u>	<u>DC-5</u>	<u>DC-6</u>	<u>NDC-.25-1</u>	<u>NDC-.5-1</u>
<u>Time, EST</u>	1103	1648	1701	1721	1745		
<u>Wind Direction</u>		Variable	Variable	Variable	N		N
<u>Wind Speed, knts</u>		5-10	5-10	5-10	6		
<u>Sea Height, ft</u>		1	1	1	1		
<u>Weather</u>		Clearing Bright	Clearing	Clearing	Squall Clouds		Overcast Hazy Warm
<u>Secchi Disc, m</u>	4.9	8.0	4.5	6.0	10.5	10.3	3.3
<u>Water Color</u>	Milky light green	Clear green	Milky brownish light green	Slightly milky green	Clear dark green	Clear light green	Milky brownish green
<u>Surface Water Temperature, °C</u>	22.9	22.8	21.1	21.2	21.0	22.9	23.0
<u>Water Depth, ft</u>	43	58	67	81	129	43	23
<u>Bottom Type</u>	Silty fine brown sand	Medium & coarse sand with silt inclusions	1.5" silty fine brown sand with silt inclusions over sandy silt	Fine brown silty sand	1.5" tan silty slightly sandy clay over grey very slightly sandy clay	Silty fine sand	Slightly silty coarse sand

<u>Station</u>	<u>NDC-.5-2</u>	<u>NDC-.5-3</u>	<u>NDC-1-1</u>	<u>NDC-1-2</u>	<u>NDC-1-3</u>	<u>NDC-2-1</u>	<u>NDC-2-2</u>	<u>NDC-2-3</u>
<u>Time, EST</u>	1041		1026	1010			0839	
<u>Wind Direction</u>	N			N				
<u>Wind Speed, knts</u>	9			6				
<u>Sea Height, ft</u>	1			1				
<u>Weather</u>	Overcast Hazy Warm			Partly cloudy Hazy Warm				
<u>Secchi Disc, m</u>	2.5	10.0	3.6	7.0	10.5	3.4	3.0	10.2
<u>Water Color</u>	Very milky slightly- brownish green	Clear blue- green	Milky light green	Slightly milky light green	Clear blue- green	Milky light green	Milky light green	Clear blue- green
<u>Surface Water Temperature, °C</u>	23.0	22.4	23.0	22.9	21.4	22.8	22.8	22.8
<u>Water Depth, ft</u>	28	58	21	39	68	16	31	53
<u>Bottom Type</u>	Silty fine brown sand	Silty fine sand	Silty coarse sand & granules	Silty fine sand with organic inclusions	Silty fine sand	Slightly silty brown medium sand	Silty fine brown sand	Silty fine sand

Appendix A, 9 July 1971 continued.

<u>Station</u>	<u>NDC-2-4</u>	<u>NDC-4-1</u>	<u>NDC-4-2</u>	<u>NDC-4-3</u>	<u>NDC-4-4</u>	<u>NDC-7-1</u>	<u>NDC-7-2</u>	<u>NDC-7-3</u>
<u>Time, EST</u>	1851			1920	1823	2057	2046	2030
<u>Wind Direction</u>	N		N	N	N	N	N	N
<u>Wind Speed, knts</u>	6		9	8	6	0-5	0-5	6
<u>Sea Height, ft</u>	1		1	1	1	0.5	0.5	0.5
<u>Weather</u>	Cloudy	Partly cloudy Warm	Overcast	Cloudy	Clouding	Clouds Dusk	Clouds Dusk	Cloudy Dusk
<u>Secchi Disc, m</u>	5.8	3.0	3.2	8.0	9.0			
<u>Water Color</u>	Clear dark green	Milky light green	Milky light green	Clear green	Clear dark green			
<u>Surface Water Temperature, °C</u>	20.5	22.8	22.8	22.8	20.5	23.0	22.8	23.0
<u>Water Depth, ft</u>	84	18	24	63	164	15	26	48
<u>Bottom Type</u>	Fine brown silty sand with grey silty inclusions	Fine clean sand	Coarse sand grey with silt	Fine brown silty sand with grey silt inclusions	0.5" brown sandy silt over grey slightly sandy silt	Fine brown silty sand with some coarse sand	Slightly silty fine brown sand with some coarse sand	Slightly silty fine brown sand

<u>Station</u>	<u>NDC-7-4</u>	<u>NDC-7-5</u>	<u>SDC-.25-1</u>	<u>SDC-.5-1</u>	<u>SDC-.5-2</u>	<u>SDC-.5-3</u>	<u>SDC-1-1</u>	<u>SDC-1-2</u>
<u>Time, EST</u>	2013	1950		1136	1125	1633	1154	1212
<u>Wind Direction</u>	N	N				Variable		
<u>Wind Speed, knts</u>	6	6				5-10		
<u>Sea Height, ft</u>	1	1				1		
<u>Weather</u>	Clouds	Cloudy				Clearing Bright		
<u>Secchi Disc, m</u>	5.5	6.0	4.9	1.75	2.5	9.0	2.2	4.1
<u>Water Color</u>	Clear green	Clear dark green	Milky light green	Milky light green	Milky light green	Clear dark green	Milky light green	Milky light green
<u>Surface Water Temperature, °C</u>	23.0	22.1	23.0	23.0	22.9	23.0	22.9	23.0
<u>Water Depth, ft</u>	58	80	43	16	30	62	21	41
<u>Bottom Type</u>	Medium silty brown sand with large grey silt inclusions	Fine & medium silty brown sand	Fine silty sand	Clean fine sand	Fine silty sand	Fine brown silty sand with silty inclusions	Silty medium sand & granules	Silty fine sand

Appendix A, 9 July 1971 continued.

<u>Station</u>	<u>SDC-1-3</u>	<u>SDC-2-1</u>	<u>SDC-2-2</u>	<u>SDC-2-3</u>	<u>SDC-2-4</u>	<u>SDC-4-1</u>	<u>SDC-4-2</u>	<u>SDC-4-3</u>
<u>Time, EST</u>	1615	1242	1232	1226	1553	1331	1322	1304
<u>Wind Direction</u>	Variable	W			Variable		W	W
<u>Wind Speed, knts</u>	5-10	16			5-10		8	8
<u>Sea Height, ft</u>	1	1			1			1
<u>Weather</u>	Clearing Bright	Squall clouds Cooling			Overcast		Partly cloudy Warmer	Overcast Cooler
<u>Secchi Disc, m</u>	9.0	3.7	3.25	5.8	9.5	2.75	5.0	5.5
<u>Water Color</u>	Clear dark green	Milky light green	Milky light green	Slightly milky light green	Clear dark green	Milky light green	Slightly milky light green	Slightly milky light green
<u>Surface Water Temperature, °C</u>	22.4	22.6	22.8		22.0	22.7	22.8	22.9
<u>Water Depth, ft</u>	66	15	29	53	78	21	29	62
<u>Bottom Type</u>	Medium brown sand with silt inclusions & small pebbles	Clean fine sand	Slightly silty fine sand	Grey soft sandy clay with soft grey organic inclusions	0.5" fine brown silty sand over black sandy silt	Clean coarse sand & granules	Fine silty sand	Fine silty sand

<u>Station</u>	<u>SDC-4-4</u>	<u>SDC-7-1</u>	<u>SDC-7-2</u>	<u>SDC-7-3</u>	<u>SDC-7-4</u>	<u>SDC-7-5</u>
<u>Time, EST</u>	1521	1405	1352	1419	1435	1451
<u>Wind Direction</u>	Variable	S			Variable	Variable
<u>Wind Speed, knts</u>	5-10	0-3			5-10	5-10
<u>Sea Height, ft</u>	1	1			1	1
<u>Weather</u>	Overcast	Overcast			Overcast	Overcast
<u>Secchi Disc, m</u>	9.0	4.0	5.0	5.5	5.5	7.0
<u>Water Color</u>	Clear dark green	Milky light green	Clear light green	Clear green	Clear green	Clear dark green
<u>Surface Water Temperature, °C</u>	22.1	22.8	22.8	22.8	23.0	23.1
<u>Water Depth, ft</u>	104	15	31	51	56	72
<u>Bottom Type</u>	0.5" fine brown silty sand over sandy grey silt	Slightly silty fine brown sand	Silty fine brown sand & small pebbles	Silty medium sand over tough grey clay	Silty fine brown sand	0.5" fine brown silty sand over grey sandy silt

Appendix A continued, 2 Sept. 1971.

<u>Station</u>	<u>DC-2</u>	<u>DC-3</u>	<u>DC-4</u>	<u>DC-5</u>	<u>DC-6</u>	<u>NDC-.25-1</u>	<u>NDC-.5-1</u>	<u>NDC-.5-2</u>
<u>Time, EST</u>	1023	1558	1612	1631	1657	1012	0951	1001
<u>Wind Direction</u>	SE	SW	SW	SW	SE		SSE	
<u>Wind Speed, knts</u>	5	5	8	6	8		5	
<u>Sea Height, ft</u>	0.25	Ripples	2 inches	0.25	0.25		0.25	
<u>Weather</u>	Partly cloudy Hazy Warm			Partly cloudy	Cloudless Hazy		Hazy Warm	
<u>Secchi Disc, m</u>	4.0	6.0	5.3	4.9	5.4	4.9	3.3	4.0
<u>Water Color</u>	Milky light green	Clear light green	Milky light green	Very milky light green	Milky light green	Slightly milky light green	Milky light green	Milky light green
<u>Surface Water Temperature, °C</u>	20.8	22.4	21.8	22.1	23.1	20.8	20.4	20.7
<u>Water Depth, ft</u>	40	54	65	78	133	40	16	27
<u>Bottom Type</u>	Fine silty brown sand	Silty fine brown sand with black silt-clay	Silty fine brown sand with black silt-clay inclusions	0.5" tan fine sand over grey gritless soft clay	0.25" tan sand over grey gritless soft clay	Fine sand with a few grey clay inclusions	Silty fine brown sand	Silty fine sand

<u>Station</u>	<u>NDC-.5-3</u>	<u>NDC-1-1</u>	<u>NDC-1-2</u>	<u>NDC-1-3</u>	<u>NDC-2-1</u>	<u>NDC-2-2</u>	<u>NDC-2-3</u>	<u>NDC-2-4</u>
<u>Time, EST</u>	0907	0939	0927	0853	0824	0805	0836	1756
<u>Wind Direction</u>	SSE							SW
<u>Wind Speed, knts</u>	5							3
<u>Sea Height, ft</u>	0.25							0.25
<u>Weather</u>	Heavy hazy Warm	Hazy Warm		Fog		Fog		Clear Slightly hazy
<u>Secchi Disc, m</u>	5.8	4.0	5.2	5.5	3.8	3.8	5.2	5.0
<u>Water Color</u>	Clear light green	Milky light green	Slightly milky light green	Clear light green	Milky light green	Milky light green	Slightly milky green	Milky light green
<u>Surface Water Temperature, °C</u>	20.4	20.5	20.5	20.8	20.3	20.3	20.4	21.8
<u>Water Depth, ft</u>	53	14.5	38	65	14	31	49	81
<u>Bottom Type</u>	Fine sand with grey clay inclusions	Silty brown medium sand	Silty fine sand with a few grey clay inclusions	Silty fine sand with organic inclusions	Slightly silty medium brown sand	Silty fine sand with black organic inclusions	Fine silty sand with organic soil inclusions	0.5" fine brown silty sand over slightly sandy soft grey clay

Appendix A, 2 Sept. 1971 continued.

<u>Station</u>	<u>NDC-4-1</u>	<u>NDC-4-2</u>	<u>NDC-4-3</u>	<u>NDC-4-4</u>	<u>NDC-7-1</u>	<u>NDC-7-2</u>	<u>NDC-7-3</u>	<u>NDC-7-4</u>
<u>Time, EST</u>	0729	0751	1821	1726	1946	1937	1910	
<u>Wind Direction</u>	SSW			SW				SW
<u>Wind Speed, knts</u>	8			5				7
<u>Sea Height, ft</u>	0.5			0.25				0.33
<u>Weather</u>	Fog			Clear Slightly hazy				Few clouds Dusk
<u>Secchi Disc, m</u>	3.9	4.0	6.0	4.5				
<u>Water Color</u>	Brownish green	Slightly- brownish green	Clear green	Milky light green				Clear light green
<u>Surface Water Temperature, °C</u>	20.3	20.3	21.8	22.2	23.1		21.9	21.1
<u>Water Depth, ft</u>	15	27	59	145	15	27	44	54
<u>Bottom Type</u>	Slightly silty fine sand	Slightly silty fine sand	Silty sand granules & gravel	Slightly sandy soft grey clay	Slightly silty fine brown sand	Brown medium sand with some silt	Fine brown sand with organic soil and plant remains inclusions	Silty fine brown sand with a few dark organic inclusions

<u>Station</u>	<u>NDC-7-5</u>	<u>SDC-.25-1</u>	<u>SDC-.5-1</u>	<u>SDC-.5-2</u>	<u>SDC-.5-3</u>	<u>SDC-1-1</u>	<u>SDC-1-2</u>	<u>SDC-1-3</u>
<u>Time, EST</u>	1846	1033	1051	1042	1544	1104	1116	1529
<u>Wind Direction</u>	SE		Calm		SW	Calm	SW	
<u>Wind Speed, knts</u>	5		0		6	0	4	
<u>Sea Height, ft</u>	0.25		0.25		Ripples		Ripples	
<u>Weather</u>	Partly cloudy Sunset		Partly cloudy Hazy Warm		Partly cloudy Hazy Warm	Partly cloudy Hazy Warm	Partly cloudy Hazy Warm	
<u>Secchi Disc, m</u>	5.5	4.75	2.5	3.75	6.0	3.25	4.5	5.1
<u>Water Color</u>	Clear green	Milky light green	Milky light green	Milky yellowish green	Milky light green	Milky light green	Milky light green	Clear light green
<u>Surface Water Temperature, °C</u>	21.8	20.7	20.7	21.0	21.7	21.1	21.8	21.8
<u>Water Depth, ft</u>	75	41	16	27	52	19	39	62
<u>Bottom Type</u>	0.5" fine brown sand over sandy soft grey clay	Fine silty brown sand	Silty fine brown sand	Silty fine brown sand	Silty fine brown sand	Slightly silty fine brown sand	Silty fine brown sand	Silty fine brown sand

Appendix A, 2 Sept. 1971 continued.

<u>Station</u>	<u>SDC-2-1</u>	<u>SDC-2-2</u>	<u>SDC-2-3</u>	<u>SDC-2-4</u>	<u>SDC-4-1</u>	<u>SDC-4-2</u>	<u>SDC-4-3</u>	<u>SDC-4-4</u>
<u>Time, EST</u>	1154	1144	1130	1509	1248	1239	1220	1439
<u>Wind Direction</u>	Calm	Calm	SW	Calm	Calm	Calm	Calm	
<u>Wind Speed, knts</u>	0	0	6	0	0			
<u>Sea Height, ft</u>			Ripples					
<u>Weather</u>			Clear Hazy Warm	Clear Warm			Hazy Warm Humid	Partly cloudy Humid Hazy
<u>Secchi Disc, m</u>	3.5	4.5	5.25	4.7	3.75	4.25	5.2	6.0
<u>Water Color</u>	Milky yellowish green	Milky light green	Milky light green	Very white milky green	Milky light green	Clear light green	Slightly milky light green	Clear green
<u>Surface Water Temperature, °C</u>	21.1	21.1	21.1	21.0		21.6	21.1	
<u>Water Depth, ft</u>	10	25	50	75	13	27	59	106
<u>Bottom Type</u>	Slightly silty fine brown sand	Silty fine sand	Silty fine brown sand	Grey gritless soft clay	Slightly silty fine brown sand	Silty fine brown sand with soft grey clay inclusions	Silty fine brown sand	0.5" sandy silt over soft grey gelatinous clay

<u>Station</u>	<u>SDC-7-1</u>	<u>SDC-7-2</u>	<u>SDC-7-3</u>	<u>SDC-7-4</u>	<u>SDC-7-5</u>
<u>Time, EST</u>	1313	1325	1336	1351	1408
<u>Wind Direction</u>	Calm	Calm			
<u>Wind Speed, knts</u>					
<u>Sea Height, ft</u>					
<u>Weather</u>	Partly cloudy Local rain Warm	Partly cloudy Warm		Partly cloudy Hazy	
<u>Secchi Disc, m</u>	4.0	6.2	6.0	6.0	6.0
<u>Water Color</u>	Slightly milky light green	Slightly milky light green	Slightly milky green	Very slightly milky green	Clear green
<u>Surface Water Temperature, °C</u>	21.8	21.3	23.2	22.8	20.4
<u>Water Depth, ft</u>	13	27	48.5	53	68
<u>Bottom Type</u>	Slightly silty fine brown sand	Slightly silty fine brown sand	Silty fine brown sand with silty-clay inclusions	Silty fine brown sand with small pebbles	Fine brown silty sand with silty-clay inclusions



Appendix A continued, 8 Nov. 1971.

<u>Station</u>	<u>DC-1</u>	<u>DC-2</u>	<u>DC-3</u>	<u>DC-4</u>	<u>DC-5</u>	<u>DC-6</u>	<u>NDC-.25-1</u>	<u>NDC-.5-1</u>
<u>Time, EST</u>	1017	1007	1140	1421	1340	1746	0955	0906
<u>Wind Direction</u>				SE	S	SSE		
<u>Wind Speed, knts</u>				10	12	18		
<u>Sea Height, ft</u>				2	3	2-3		
<u>Weather</u>				Partly cloudy	Partly cloudy	Overcast Cold		
<u>Secchi Disc, m</u>	1.5	2.0	2.5	3.0	3.5		2.0	1.5
<u>Water Color</u>	Milky light green	Milky light green	Milky green	Milky green	Milky green		Milky light green	Milky light green
<u>Surface Water Temperature, °C</u>	9.8	10.5	11.0	11.3	11.9	9.0	10.3	9.2
<u>Water Depth, ft</u>	23	40	56	65	80	133	40	16
<u>Bottom Type</u>	Fine silty sand	Clean coarse sand	Fine sand with clay	Silty fine sand	Very silty fine sand	Brown sandy clay over grey gelatinous clay	Slightly silty coarse sand	Clean fine sand

<u>Station</u>	<u>NDC-.5-2</u>	<u>NDC-.5-3</u>	<u>NDC-1-1</u>	<u>NDC-1-2</u>	<u>NDC-1-3</u>	<u>NDC-2-1</u>	<u>NDC-2-2</u>	<u>NDC-2-3</u>
<u>Time, EST</u>	0916	1153	0854	1207	1403	0840	0826	1227
<u>Wind Direction</u>	SSE			S	SSW			
<u>Wind Speed, knts</u>	8			15	10			
<u>Sea Height, ft</u>	0.5			2	1			
<u>Weather</u>	Partly cloudy Cold (36°F)			Partly cloudy Cold (42°F)				
<u>Secchi Disc, m</u>	2.0	2.0	1.5	1.5		1.0	2.0	1.5
<u>Water Color</u>	Milky light green	Milky green	Milky light green	Milky green	Green	Milky green	Milky light green	Milky green
<u>Surface Water Temperature, °C</u>	10.1	11.0	9.3	10.5	11.5	9.3	10.2	11.2
<u>Water Depth, ft</u>	28	55	14	37	66	14	27	50
<u>Bottom Type</u>	Silty sand	Silt and clay	Silty sand	Clean fine sand	Fine sand with black gelatinous silt inclusions	Clean fine sand	Silty sand	Slightly silty fine brown sand

Appendix A, 8 Nov. 1971 continued.

<u>Station</u>	<u>NDC-2-4</u>	<u>NDC-4-1</u>	<u>NDC-4-2</u>	<u>NDC-4-3</u>	<u>NDC-4-4</u>	<u>SDC-.25-1</u>	<u>SDC-.5-1</u>	<u>SDC-.5-2</u>
<u>Time, EST</u>	1317	0740	0810	1244	1825	1030	1049	1041
<u>Wind Direction</u>	SSE	SSE		S	S			
<u>Wind Speed, knts</u>	15	8		12	20			
<u>Sea Height, ft</u>	1	1		1	3			
<u>Weather</u>		Partly cloudy Cold (31°F)		Partly cloudy Cold (45°F)	Overcast Cold			
<u>Secchi Disc, m</u>	3.0	1.3	2.5	2.5		2.5	1.5	2.0
<u>Water Color</u>	Milky green	Milky light green	Milky light green	Milky green		Milky light green	Milky light green	Milky light green
<u>Surface Water Temperature, °C</u>	11.7	9.8	10.2	11.3	9.7	10.8	9.9	10.5
<u>Water Depth, ft</u>	82	15	30	55	141	41	18	29
<u>Bottom Type</u>	Fine silty sand	Clean fine sand	Slightly silty fine sand	Slightly silty medium sand	Black gelatinous gritless clay	Silty sand	Clean fine sand	Silty sand over clay

<u>Section</u>	<u>SDC-.5-3</u>	<u>SDC-1-1</u>	<u>SDC-1-2</u>	<u>SDC-1-3</u>	<u>SDC-2-1</u>	<u>SDC-2-2</u>	<u>SDC-2-3</u>	<u>SDC-2-4</u>
<u>Time, EST</u>	1127	1102	1113	1440	1524	1512	1458	1637
<u>Wind Direction</u>				SSE	SE	SSE	SSE	SSE
<u>Wind Speed, knts</u>				15	12	15	15	15
<u>Sea Height, ft</u>				1	1	1.5	1.5	2
<u>Weather</u>				Cloudy		Cloudy		
<u>Secchi Disc, m</u>	2.0	1.5	2.0	3.5	1.5		2.5	3.5
<u>Water Color</u>	Milky green	Milky green	Milky green	Clear dark green	Milky light green		Slightly milky dark green	Milky green
<u>Surface Water Temperature, °C</u>	11.0	10.0	10.8	11.3	10.0	10.1	11.0	10.7
<u>Water Depth, ft</u>	55	23	41	65	19	27	50	75
<u>Bottom Type</u>	Silty fine sand with small black silty-clay inclusions	Silty fine sand	Silty fine sand	Silty fine sand	Silty fine sand	Silty very fine sand	Silty very fine sand	Very fine sand over black gelatinous clay

Appendix A, 8 Nov. 1971 continued.

<u>Station</u>	<u>SDC-4-1</u>	<u>SDC-4-2</u>	<u>SDC-4-3</u>	<u>SDC-4-4</u>
<u>Time, EST</u>	1545	1555	1614	1712
<u>Wind Direction</u>	SSE	SSE	SE	S
<u>Wind Speed, knts</u>	12	10	15	16
<u>Sea Height, ft</u>	2	0.5	1	2-3
<u>Weather</u>			Partly cloudy	
<u>Secchi Disc, m</u>	1.5	2.5	3.5	4.0
<u>Water Color</u>	Milky light green	Milky green	Milky green	Clear dark green
<u>Surface Water Temperature, °C</u>		10.5	11.2	10.0
<u>Water Depth, ft</u>	14	27	59	103
<u>Bottom Type</u>	Clean medium and coarse sand	Very fine slightly silty sand	Silty fine sand	Gelatinous grey sandy clay

## APPENDIX B. PHYTOPLANKTON COLLECTIONS

### Identification of Plant Components

Top line (left to right):

Station number, number of species or groups, total number of individuals per milliliter, and the diversity index of the collection.

Columns (left to right):

First. . . . . Names of species or groups collected.

Second . . . . . Numbers of individuals of each species or group, per milliliter.

Third. . . . . Percentages of the total individuals that are represented by the individuals of each species or group. These are the  $N_i/N$  factors used in the diversity index equation.

Appendix B, 15 April 1971.

DC-1	18	341.1	3.21	CC-3	18	455.7	2.95
ANKISTRODESMUS FALCATUS V. MIRABILIS		3.7	1.09	ANKISTRODESMUS FALCATUS V. MIRABILIS		2.8	0.61
BLUE-GREEN UNKNOWN FILAMENT		5.6	1.63	BLUE-GREEN UNKNOWN FILAMENT		6.5	1.43
CHLAMYDOMONAS SP.		76.9	22.55	CHLAMYDOMONAS SP.		128.5	24.21
CLOSTERIOPSIS LONGISSIMA		6.3	0.27	CLOSTERIOPSIS LONGISSIMA		1.4	0.31
CRYPTOMONAS SP.		5.6	1.63	COELASTRUM SP.		6.9	0.20
CYCLotella SP.		26.3	7.88	COSMARUM SP.		0.5	0.10
DINOBRYON DIVERGENS		5.6	1.63	CRYPTOMONAS SP.		19.0	4.18
FRAGILARIA CROTONEENSIS		22.2	6.52	CYCLotella SP.		41.3	9.06
GLENODINIUM SP.		6.9	0.27	DINOBRYON DIVERGENS		1.4	0.31
GLOEUCYSTIS SP.		4.6	1.36	FRAGILARIA CROTONEENSIS		6.5	1.43
MELOSIRA ISLANDICA		1.9	0.54	MELOSIRA ISLANDICA		3.7	0.81
MELOSIRA SP.		40.8	11.96	MELOSIRA SP.		68.7	15.07
JEODONIA SP.		15.8	4.62	OCHROMONAS SP.		63.6	13.95
JEODONIUM SP.		5.6	1.63	OOCYSTIS SP.		0.5	0.10
OOCYSTIS SP.		2.8	0.82	OSCILLATORIA SP.		0.9	0.20
SCENEDESMUS SP.		2.8	0.82	SCENEDESMUS SP.		6.5	0.10
STEPHANODISCUS SP.		46.2	14.13	STEPHANODISCUS SP.		49.6	10.90
TABELLARIA FENESTRATA		70.5	20.65	TABELLARIA FENESTRATA		55.4	13.03
				DC-4	33	233.4	3.83
				ANKYSTIS SP.		0.5	0.20
				ANKISTRODESMUS FALCATUS V. MIRABILIS		5.6	2.39
				ANKISTRODESMUS GELIFACTUS		0.5	0.20
				ANKISTRODESMUS SP.		0.5	0.20
				BLUE-GREEN UNKNOWN FILAMENT		2.8	1.19
				CHLAMYDOMONAS SP.		20.0	8.55
				CHROOCOCCUS SP.		6.5	0.20
				CLOSTERIOPSIS LONGISSIMA		5.1	2.19
				CLOSTERILM ACIRCULARE		0.5	0.20
				CLOSTERIUM SP.		6.5	0.20
				COELASTRUM SP.		6.5	2.78
				COSMARUM SP.		6.5	0.20
				CRUCIGENIA SP.		6.9	0.40
				CRYPTOMONAS SP.		10.7	4.57
				CYCLotella SP.		27.4	11.73
				DIATOMA TENUE		6.5	0.20
				DINOBRYON DIVERGENS		2.3	0.95
				FRAGILARIA CROTONEENSIS		7.9	3.38
				GLENODINIUM SP.		6.9	0.40
				GLOEUCYSTIS SP.		2.3	0.99
				MELOSIRA ISLANDICA		2.3	0.99
				MELOSIRA SP.		33.9	14.51
				MICROCYSTIS SP.		0.5	0.20
				NITZSCHIA SP.		1.9	0.80
				OCHROMONAS SP.		41.3	17.69
				OOCYSTIS SP.		1.4	0.60
				OSCILLATORIA SP.		6.9	0.40
				SCENEDESMUS SP.		7.0	2.98
				STEPHANODISCUS SP.		17.2	7.36
				SYNEDRA SP.		2.3	0.99
				SYNEDRA ULNA		1.9	0.80
				TABELLARIA FENESTRATA		28.4	11.33
				TETRAEDON MINIMUM		6.5	0.20
DC-2	21	335.0	3.25				
ANKISTRODESMUS FALCATUS V. MIRABILIS		6.0	1.80				
BLUE-GREEN UNKNOWN FILAMENT		8.8	2.63				
CHLAMYDOMONAS SP.		55.4	17.73				
CLOSTERIOPSIS LONGISSIMA		2.3	0.69				
CLOSTERIUM SP.		1.4	0.42				
COELASTRUM SP.		1.4	0.42				
COELISPHAERIUM SP.		6.5	0.14				
CRUCIGENIA SP.		6.9	0.28				
CRYPTOMONAS SP.		1.9	0.55				
CYCLotella SP.		41.8	12.47				
DINOBRYON DIVERGENS		4.2	1.25				
FRAGILARIA CROTONEENSIS		40.4	12.05				
GLOEUCYSTIS SP.		6.5	0.14				
MELOSIRA ISLANDICA		6.5	0.14				
MELOSIRA SP.		60.3	18.01				
UCHROMONAS SP.		25.5	7.62				
OOCYSTIS SP.		1.9	0.55				
OSCILLATORIA SP.		0.9	0.28				
SCENEDESMUS SP.		4.6	1.39				
STEPHANODISCUS SP.		16.7	4.99				
TABELLARIA FENESTRATA		55.2	16.48				

Appendix B, 15 April 1971 continued.

NDC-25-1		18	296.6	3.22
NDC-25-1	ANACYSTIS SP.		0.9	0.31
	ANKISTRODESCHUS FALCATUS V. MIRABILIS		1.9	0.63
	ANKISTRODESCHUS GELIFACTUS		0.9	0.31
	BLUE-GREEN UNKNOWN FILAMENT		10.2	3.44
	CHLAMYDOMONAS SP.		35.9	13.44
	CRYPTOMONAS SP.		5.6	1.88
	CYCLUTELLA SP.		10.2	3.44
	DINOBRYON DIVERGENS		0.9	0.31
	FRAGILARIA CROTONEUSIS		15.8	5.31
	FRAGILARIA SP.		2.8	0.94
	GLOECYSTIS SP.		1.9	0.63
	MELOSIRA ISLANDICA		6.5	2.19
	MELOSIRA SP.		54.7	18.44
	OCCHROMONAS SP.		52.8	17.81
	OCYSTIS SP.		4.6	1.56
	SCENEDESCHUS SP.		1.9	0.63
	STEPHANODISCUS SP.		28.7	9.69
	TABELLARIA FENESTRATA		56.5	19.06
NDC-5-0		12	686.4	2.60
NDC-5-0	BLUE-GREEN UNKNOWN FILAMENT		7.0	1.01
	CHLAMYDOMONAS SP.		215.7	31.42
	CRYPTOMONAS SP.		16.2	2.36
	CYCLUTELLA SP.		51.0	7.43
	FRAGILARIA CROTONEUSIS		13.9	2.03
	GLOECYSTIS SP.		11.6	1.69
	GLENKINIA SP.		2.3	0.34
	MELOSIRA SP.		27.8	4.05
	OCCHROMONAS SP.		7.0	1.01
	SCENEDESCHUS SP.		55.7	8.11
	STEPHANODISCUS SP.		224.9	32.77
	TABELLARIA FENESTRATA		53.3	7.77
NDC-5-1		18	1036.9	3.09
NDC-5-1	ANKISTRODESCHUS FALCATUS V. MIRABILIS		3.7	0.36
	BLUE-GREEN UNKNOWN FILAMENT		14.8	1.43
	CHLAMYDOMONAS SP.		191.1	18.43
	COELASTRUM SP.		3.7	0.36
	CCELOSOPHAERIUM SP.		1.9	0.18
	CRYPTOMONAS SP.		20.4	1.97
	CYCLUTELLA SP.		122.4	11.81
	DINOBRYON DIVERGENS		1.9	0.18
	FRAGILARIA CROTONEUSIS		85.3	8.23
	GLENKINIA SP.		1.9	0.18
	GLOECYSTIS SP.		5.6	0.54
	MELOSIRA SP.		131.7	12.76
	NITZSCHIA SP.		1.9	0.18
	OCCHROMONAS SP.		156.6	18.96
	OCYSTIS SP.		1.9	0.18
	SCENEDESCHUS SP.		7.4	0.72
	STEPHANODISCUS SP.		87.2	8.41
	TABELLARIA FENESTRATA		157.7	15.21

Appendix B, 15 April 1971 continued.

NDC-5-2		19	21	14	16	17	19
NDC-5-2		393.0	587.4	860.7	2.76	464.4	228.8
ANKISTRODESMUS FALCATUS V. MIRABILIS							
ANKISTRODESMUS SP.		C.9	1.4	155.8	18.10		1.01
BLUE-GREEN UNKNOWN FILAMENT		C.9	3.7	7.4	0.86		0.41
CHLAMYDOMONAS SP.		2.8	0.5	159.5	18.53		1.83
COELASTRUM SP.		64.0	3.2	7.4	0.86		2.84
CRYPTOCOCCLUS SP.		1.9	1.9	14.8	1.72		0.20
CRYPTOCOCCLUS SP.		4.6	5.1	7.4	0.86		1.22
CYCLOTELLA SP.		46.3	10.7	14.8	1.72		0.41
DINOBRYON DIVERGENS		2.8	72.4	74.2	0.62		0.47
FRAGILARIA CROTONEUSIS		3.7	85.4	3.7	0.43		4.52
MELOSIRA ISLANDICA		0.71	144.8	29.7	3.45		2.64
MELOSIRA SP.		1.9	0.9	274.5	31.90		1.01
OCHROMONAS SP.		63.0	45.5	100.2	11.64		0.20
OCHROMONAS SP.		34.3					1.62
OCHROMONAS SP.		0.9					15.21
OCHROMONAS SP.		1.9					27.99
OCHROMONAS SP.		0.24					1.22
OCHROMONAS SP.		0.24					9.53
OCHROMONAS SP.		57.5					10.43
STEPHANODISCUS SP.		102.9					
TABELLARIA FENESTRATA		C.9					
TETRAEDRON PINUM							
NDC-5-3		587.4	587.4	464.4	2.76	464.4	228.8
NDC-5-3							
ANKISTRODESMUS FALCATUS V. MIRABILIS							
ANKISTRODESMUS GELIFACTUS		1.4	1.4				1.01
BLUE-GREEN UNKNOWN FILAMENT		3.7	3.7				0.41
CHLAMYDOMONAS SP.		0.5	0.5				1.83
COELASTRUM SP.		3.2	3.2				2.84
COSMARUM SP.		107.6	107.6				0.20
CRYPTOCOCCLUS SP.		1.9	1.9				1.22
CRYPTOCOCCLUS SP.		0.9	0.9				0.41
CYCLOTELLA SP.		2.3	2.3				0.47
CYCLOTELLA SP.		43.2	43.2				4.52
DINOBRYON DIVERGENS		3.2	3.2				2.64
FRAGILARIA CROTONEUSIS		2.8	2.8				1.01
GLJEUCYSTIS SP.		45.0	45.0				0.20
MELOSIRA ISLANDICA		5.1	5.1				1.62
MELOSIRA SP.		10.7	10.7				15.21
MELOSIRA SP.		72.4	72.4				27.99
OCHROMONAS SP.		85.4	85.4				1.22
OCHROMONAS SP.		1.9	1.9				9.53
OCHROMONAS SP.		0.32	0.32				10.43
OCHROMONAS SP.		5.1	5.1				
SCENEDESMUS SP.		144.8	144.8				
STEPHANODISCUS SP.		0.9	0.9				
SYNEDRA SP.		0.16	0.16				
TABELLARIA FENESTRATA		7.74	7.74				

Appendix B, 15 April 1971 continued.

NDC-2-3	13	1001.7	2.96	21	90.5	3.34
NDC-2-0						
BLUE-GREEN UNKNOWN FILAMENT		11.1	1.11	ANACYSTIS SP.	C.5	0.51
CHLAMYDOMONAS SP.	319.1	319.1	31.85	ANKISTRODESMUS FALCATUS V. MIRABILIS	C.5	0.51
CRUCIGENIA SP.	14.8	14.8	1.48	ANKISTRODESMUS FALCATUS	C.5	0.51
CRYPTOMONAS SP.	18.5	18.5	1.85	ANKISTRODESMUS GELIFACTUS	C.5	0.51
CYCLotella SP.	51.9	51.9	5.19	BLUE-GREEN UNKNOWN FILAMENT	2.8	3.04
FRAGILARIA CRUTONENSIS	64.8	64.8	6.48	CHLAMYDOMONAS SP.	4.6	5.13
GLUECYSTIS SP.	70.5	70.5	7.05	CCSMARIUM SP.	0.5	0.51
MELOSIRA SP.	40.8	40.8	4.08	CRYPTOMONAS SP.	1.4	1.54
NAVICULA SP.	3.7	3.7	0.37	CYCLotella SP.	5.1	5.64
OCHROMONAS SP.	44.5	44.5	4.45	DINORRYGA DIVERGENS	2.3	2.56
SCENEDESMUS SP.	63.1	63.1	6.31	FRAGILARIA CRUTONENSIS	5.1	5.64
STEPHANODISCUS SP.	215.2	215.2	21.52	GLUECYSTIS SP.	C.5	0.51
TABELLARIA FENESTRATA	81.6	81.6	8.16	MELOSIRA ISLANDICA	4.2	4.62
				MELOSIRA SP.	26.0	28.72
				UCHROMONAS SP.	7.0	7.69
				CEGOGMILUM SP.	C.5	0.51
				DUUCYSTIS SP.	C.9	1.03
				SCENEDESMUS SP.	2.8	3.04
				STEPHANODISCUS SP.	6.0	6.67
				SYNEURA SP.	C.5	0.51
				TABELLARIA FENESTRATA	18.6	20.51

NDC-2-1	19	741.6	3.11	16	174.0	2.87
NDC-2-4						
ANKISTRODESMUS FALCATUS V. MIRABILIS		5.6	0.75	ANKISTRODESMUS FALCATUS V. MIRABILIS	2.8	1.60
BLUE-GREEN UNKNOWN FILAMENT	4.6	4.6	0.63	BLUE-GREEN UNKNOWN FILAMENT	C.9	0.53
CHLAMYDOMONAS SP.	184.5	184.5	24.88	CHLAMYDOMONAS SP.	31.1	17.97
GLCSTERIOPSIS LONGISSIMA	C.9	C.9	0.13	CHROCOCCUS SP.	0.5	0.27
CCSMARIUM SP.	12.1	12.1	1.63	COELASTRUM SP.	3.7	2.13
CRYPTOMONAS SP.	78.8	78.8	10.63	CRYPTOMONAS SP.	9.7	5.60
CYCLotella SP.	2.8	2.8	0.38	CYCLotella SP.	1.9	1.07
DINORRYGA DIVERGENS	73.2	73.2	9.88	DINORRYGA DIVERGENS	0.9	0.53
FRAGILARIA CRUTONENSIS	1.9	1.9	0.25	FRAGILARIA CRUTONENSIS	3.7	2.13
GLUECYSTIS SP.	7.4	7.4	1.00	GLUECYSTIS SP.	0.5	0.27
MELOSIRA ISLANDICA	51.0	51.0	6.88	MELOSIRA ISLANDICA	3.20	3.20
MELOSIRA SP.	C.9	C.9	0.13	MELOSIRA SP.	37.1	21.33
NAVICULA SP.	113.1	113.1	15.25	OCHROMONAS SP.	54.3	31.20
OCHROMONAS SP.	3.7	3.7	0.50	ODUCYSTIS SP.	0.5	0.27
ODUCYSTIS SP.	2.8	2.8	0.38	SCENEDESMUS SP.	7.9	4.53
OSCILLATORIA SP.	11.1	11.1	1.50	TABELLARIA FENESTRATA	13.0	7.47
SCENEDESMUS SP.	78.8	78.8	10.63			
STEPHANODISCUS SP.	107.5	107.5	14.50			
TABELLARIA FENESTRATA						



Appendix B, 15 April 1971 continued.

NDC-4-0	17	1450.6	2.90	NDC-4-3	24	313.7	3.33
ANKISTRODESMUS FALCATUS V. MIRABILIS		3.7	0.26	ANACYSTIS SP.		1.4	0.44
BLUE-GREEN UNKNOWN FILAMENT		14.8	1.02	ANKISTRODESMUS FALCATUS V. MIRABILIS		7.4	2.37
CHLAMYDOMONAS SP.	204.0		14.07	ANKISTRODESMUS SP.		0.5	0.15
CLOSTERIUM ACIRCULARE	3.7		0.26	BLUE-GREEN UNKNOWN FILAMENT		6.5	2.07
CRYPTOCOMNAS SP.	22.3		1.53	CHLAMYDOMONAS SP.		53.4	17.01
CYCLOTILLA SP.	445.2		30.69	CLOSTERIUM ACIRCULARE		0.9	0.30
FRAGILARIA CROTONENSIS	55.6		3.84	CLOSTERIUM ACIRCULARE		0.5	0.15
GLENDINIUM SP.	3.7		0.26	COELASTRUM SP.		3.7	1.18
GLEDOCYSTIS SP.	14.8		1.02	COSMARIUM SP.		0.5	0.15
MELOSTIRA ISLANDICA	11.1		0.77	CRYPTOCOMNAS SP.		8.8	2.81
UCHROMONAS SP.	129.8		8.95	CYCLOTILLA SP.		24.1	7.69
OFOGONIUM SP.	14.8		1.02	DINOBRYON DIVERGENS		3.2	1.04
OSCILLATORIA SP.	11.1		0.51	FRAGILARIA CROTONENSIS		7.9	2.51
SCENEDESMUS SP.	63.1		0.77	FRAGILARIA SP.		0.9	0.30
STEPHANODISCUS SP.	326.5		4.35	GLENDINIUM SP.		1.4	0.44
TABELLARIA FENESTRATA	118.7		22.51	GLEDOCYSTIS SP.		3.7	1.18
			6.18	MELOSTIRA ISLANDICA		58.5	18.64
				MELOSTIRA SP.		64.5	20.56
				UCHROMONAS SP.		0.9	0.30
				DOCYSTIS SP.		0.5	0.15
				OSCILLATORIA SP.		7.4	2.37
				SCENEDESMUS SP.		15.5	6.21
				STEPHANODISCUS SP.		36.2	11.54
				TABELLARIA FENESTRATA			

NDC-4-1	20	623.3	3.25	NDC-4-4	18	191.2	2.68
ANKISTRODESMUS FALCATUS V. MIRABILIS		7.4	1.19	ANKISTRODESMUS FALCATUS V. MIRABILIS		0.9	0.49
BLUE-GREEN UNKNOWN FILAMENT		5.3	1.49	CHLAMYDOMONAS SP.		78.9	41.26
CHLAMYDOMONAS SP.	11.1		1.79	CLOSTERIUM ACIRCULARE		0.9	0.49
COELASTRUM SP.	3.7		0.60	COELASTRUM SP.		0.9	0.49
COSMARIUM SP.	1.9		0.30	COSMARIUM SP.		0.9	0.49
CRYPTOCOMNAS SP.	5.6		0.89	CRYPTOCOMNAS SP.		7.0	3.64
CYCLOTILLA SP.	89.0		14.29	CYCLOTILLA SP.		13.0	6.80
DINOBRYON DIVERGENS	5.6		0.89	DINOBRYON DIVERGENS		0.5	0.24
FRAGILARIA CROTONENSIS	20.4		3.27	FRAGILARIA CROTONENSIS		3.2	1.70
FRAGILARIA SP.	3.7		0.60	GLENDINIUM SP.		0.5	0.24
GLEDOCYSTIS SP.	13.0		2.08	MELOSTIRA ISLANDICA		1.4	0.73
MELOSTIRA SP.	46.4		7.44	MELOSTIRA SP.		9.4	4.37
UCHROMONAS SP.	100.2		16.07	UCHROMONAS SP.		41.3	21.60
DOCYSTIS SP.	20.4		3.27	DOCYSTIS SP.		1.4	0.73
OSCILLATORIA SP.	3.7		0.60	SCENEDESMUS SP.		4.6	2.43
PEDIASTRUM BORYANUM	1.9		0.30	STEPHANODISCUS SP.		22.7	11.89
SCENEDESMUS SP.	29.7		4.76	TABELLARIA FENESTRATA		3.7	1.94
STEPHANODISCUS SP.	161.4		25.89	TETRAEDRUM MINIMUM		0.9	0.49
TABELLARIA FENESTRATA	87.2		13.99				

NDC-7-2	24	1041.9	3.17	ANKISTRODESMUS FALCATUS V. MIRABILIS	ANKISTRODESMUS FALCATUS V. MIRABILIS	170.8	3.31
		0.9	0.09	ANKISTRODESMUS GELIFACTUS	ANKISTRODESMUS GELIFACTUS	1.4	0.82
		6.5	0.62	BLUE-GREEN UNKNOWN FILAMENT	BLUE-GREEN UNKNOWN FILAMENT	0.5	0.27
		0.9	0.09	APHANOTHECE SP.	CHLAMYDOMONAS SP.	4.6	2.72
		0.9	0.09	COELOSTRIOPSIS LONGISSIMA	COELOSTRIOPSIS LONGISSIMA	13.9	8.15
		13.9	1.33	CHLAMYDOMONAS SP.	CHLAMYDOMONAS SP.	0.5	0.27
		271.6	26.07	CLOSTERIOPSIS LONGISSIMA	COSMARUM SP.	0.5	0.27
		4.6	0.44	COELASTRUM SP.	CRYPTOMONAS SP.	0.9	0.54
		1.9	0.18	COSMARUM SP.	CYCLOTELLA SP.	18.6	10.87
		0.9	0.09	CRYPTOMONAS SP.	DINOBRYON DIVERGENS	3.2	1.90
		22.2	2.14	CYCLOTELLA SP.	FRAGILARIA CROTONEINSIS	2.3	1.36
		210.4	20.20	DINOBRYON DIVERGENS	HELOSIRA ISLANDICA	10.7	6.25
		9.3	0.89	FRAGILARIA CROTONEINSIS	MELOSIRA SP.	3.53	3.53
		76.0	7.30	GLENODINIUM SP.	MELOSIRA SP.	21.3	12.50
		3.7	0.36	GLOEOCAPSA SP.	OCHROMONAS SP.	31.1	18.21
		5.6	0.53	GLOEOCYSTIS SP.	OOCYSTIS SP.	0.5	0.27
		16.7	1.60	HELOSIRA ISLANDICA	SCENEDESMUS SP.	2.3	1.36
		13.9	1.33	MELOSIRA SP.	STEPHANODISCUS SP.	20.4	11.96
		118.7	11.39	MELOSIRA SP.	TABELLARIA FENESTRATA	32.0	18.75
		34.3	3.29	OCHROMONAS SP.			
		1.9	0.18	OOCYSTIS SP.			
		0.9	0.09	PERIDINIUM SP.			
		9.3	0.89	SCENEDESMUS SP.			
		108.5	10.41	STEPHANODISCUS SP.			
		108.5	10.41	TABELLARIA FENESTRATA			
NDC-7-4	21	429.2	3.18	ANKISTRODESMUS FALCATUS V. MIRABILIS	ANKISTRODESMUS FALCATUS V. MIRABILIS	846.3	3.50
		0.5	0.11	ANKISTRODESMUS GELIFACTUS	ANKISTRODESMUS GELIFACTUS	0.5	0.05
		3.2	0.76	BLUE-GREEN UNKNOWN FILAMENT	BLUE-GREEN UNKNOWN FILAMENT	4.6	0.55
		0.5	0.11	CHLAMYDOMONAS SP.	CHLAMYDOMONAS SP.	0.5	0.05
		1.9	0.43	COELASTRUM SP.	COELASTRUM SP.	2.3	0.27
		78.0	18.16	COSMARUM SP.	COSMARUM SP.	1.4	0.16
		0.9	0.22	CRUCIGENTIA SP.	CRUCIGENTIA SP.	8.4	0.99
		0.9	0.22	CRYPTOMONAS SP.	CRYPTOMONAS SP.	121.6	14.36
		3.7	0.86	CYCLOTELLA SP.	CYCLOTELLA SP.	0.5	0.05
		12.5	2.92	DIATOMA TENUE V. ELONGATUM	DIATOMA TENUE V. ELONGATUM	7.9	0.93
		3.2	0.76	DINOBRYON DIVERGENS	DINOBRYON DIVERGENS	3.7	0.44
		27.4	6.38	FRAGILARIA CROTONEINSIS	FRAGILARIA CROTONEINSIS	1.9	0.22
		0.9	0.09	FRAGILARIA SP.	FRAGILARIA SP.	12.5	1.48
		3.2	0.76	GLOEOCYSTIS SP.	GLOEOCYSTIS SP.	77.5	9.16
		2.3	0.54	GLOEOCYSTIS SP.	GLOEOCYSTIS SP.	0.5	0.05
		39.9	9.30	HELOSIRA ISLANDICA	HELOSIRA ISLANDICA	2.8	0.33
		103.5	24.11	MELOSIRA SP.	MELOSIRA SP.	145.7	17.21
		2.3	0.54	MOUGEOTIA SP.	MOUGEOTIA SP.	1.4	0.16
		0.9	0.09	NAVICULA SP.	NAVICULA SP.	17.2	2.03
		3.2	0.76	NITZSCHIA ACTULARIS	NITZSCHIA ACTULARIS	0.5	0.05
		2.3	0.54	OCHROMONAS SP.	OCHROMONAS SP.	20.4	2.41
		39.9	9.30	OOCYSTIS SP.	OOCYSTIS SP.	129.0	15.24
		103.5	24.11	OSCILLATORIA SP.	OSCILLATORIA SP.	0.5	0.05
		2.3	0.54	SCENEDESMUS SP.	SCENEDESMUS SP.	0.9	0.11
		11.6	2.70	SPHAEROCYSTIS SP.	SPHAEROCYSTIS SP.	0.9	0.11
		58.0	13.51	STEPHANODISCUS SP.	STEPHANODISCUS SP.	20.4	2.41
		57.5	13.41	TABELLARIA FENESTRATA	TABELLARIA FENESTRATA	117.9	13.93
				WESTELLA BOTRYOIDES	WESTELLA BOTRYOIDES	3.7	0.44

Appendix B, 15 April 1971 continued.

SDC-5-0	16	1662-1	3-09	SDC-5-2	28	618.5	3-26
ANABAENA SP.				ANACYSTIS SP.			
ANKISTRODESMUS FALCATUS V. MIRABILIS		3.7	0.22	ANKISTRODESMUS FALCATUS V. MIRABILIS		0.5	0.08
BLUE-GREEN UNKNOWN FILAMENT		3.7	0.22	ANKISTRODESMUS GELIFACTUS		6.5	1.05
CHLAMYDOMONAS SP.		33.4	2.01	BLUE-GREEN UNKNOWN FILAMENT		1.9	0.30
CHLAMYDOMONAS SP.		148.4	8.93	CHLAMYDOMONAS SP.		2.8	0.45
CRYPTOCYSTIS SP.		7.4	0.45	CLOSTERIUM SP.		67.7	10.95
CYCLotella SP.		274.5	16.52	COELASTRUM SP.		0.5	0.04
FRAGILARIA CROTONENSIS		241.1	14.51	CRUCIGENIA SP.		1.0	0.30
GLOECYSTIS SP.		44.5	2.68	CRYPTOMONAS SP.		0.5	0.08
MELOSIRA ISLANDICA		37.1	2.23	CYCLotella SP.		4.6	0.75
MELOSIRA SP.		92.8	5.58	CYMATOPLEURA SOLEA		37.1	6.00
OSCHROMONAS SP.		204.0	12.28	DIATOMA TENUE		0.5	0.08
OSCILLATORIA SP.		3.7	0.22	DICTYOSPHAERIUM SP.		0.5	0.04
SCENEDESMUS SP.		18.5	1.12	DINOBRYON DIVERGENS		0.9	0.15
STEPHANODISCUS SP.		441.5	26.56	FRAGILARIA CROTONENSIS		1.4	0.23
SYNEDRA SP.		14.9	0.89	GLOECYSTIS SP.		163.3	26.41
TABELLARIA FENESTRATA		92.8	5.58	GLENKINIA SP.		10.7	1.73
				MELOSIRA ISLANDICA		0.5	0.08
				MELOSIRA SP.		5.1	0.83
				NITZSCHIA SP.		1.4	0.23
				OSCHROMONAS SP.		90.5	14.63
				OOCYSTIS SP.		2.8	0.45
				SCENEDESMUS BIJUGA		0.9	0.15
				SCENEDESMUS SP.		11.6	1.88
				STEPHANODISCUS SP.		44.5	7.20
				SYNEDRA SP.		10.7	1.73
				SYNEDRA ULNA		2.3	0.38
				TABELLARIA FENESTRATA		65.9	10.65
SDC-5-1	22	1096.3	3-23	SDC-5-3	25	275.6	3-33
ANACYSTIS SP.		1.9	0.17	ANABAENA SP.		0.5	0.17
ANKISTRODESMUS FALCATUS V. MIRABILIS		1.9	0.17	ANKISTRODESMUS FALCATUS V. MIRABILIS		1.9	0.67
ANKISTRODESMUS FALCATUS		1.9	0.17	BLUE-GREEN UNKNOWN FILAMENT		2.8	1.01
APHANIZOCE SP.		3.7	0.34	CHLAMYDOMONAS SP.		23.2	8.42
BLUE-GREEN UNKNOWN FILAMENT		7.4	0.68	COELASTRUM SP.		1.9	0.67
CHLAMYDOMONAS SP.		181.8	16.58	COSMARIUM SP.		0.5	0.17
CHROOCOCCUS SP.		1.9	0.17	CRUCIGENIA SP.		1.9	0.67
COELASTRUM SP.		5.6	0.51	CRYPTOMONAS SP.		2.3	0.84
COSPARTUM SP.		1.9	0.17	CYCLotella SP.		39.4	14.31
CRYPTOMONAS SP.		3.7	0.34	DICTYOSPHAERIUM SP.		0.5	0.17
CYCLotella SP.		118.7	10.83	DINOBRYON DIVERGENS		49.2	17.84
DINOBRYON DIVERGENS		5.6	0.51	FRAGILARIA CROTONENSIS		1.4	0.51
FRAGILARIA CROTONENSIS		178.1	16.24	GLOECYSTIS SP.		10.2	3.70
GLOECYSTIS SP.		29.7	2.71	MELOSIRA ISLANDICA		53.4	19.36
MELOSIRA SP.		9.3	0.85	MELOSIRA SP.		0.5	0.17
OSCHROMONAS SP.		68.6	6.26	MICRACTINIUM PUSILLUM		31.6	11.45
OOCYSTIS SP.		200.3	18.27	OSCHROMONAS SP.		0.5	0.17
SCENEDESMUS SP.		1.9	0.17	OSCILLATORIA SP.		0.5	0.17
STEPHANODISCUS SP.		14.8	1.35	SCENEDESMUS SP.		0.9	0.34
SYNEDRA SP.		105.4	9.98	STEPHANODISCUS SP.		17.6	6.40
TABELLARIA FENESTRATA		9.3	0.85	SYNEDRA SP.		3.2	1.18
				SYNEDRA ULNA		0.5	0.17
				TABELLARIA FENESTRATA		28.8	10.44
				TETRAEDRUM MINIMUM		0.5	0.17

Appendix B, 15 April 1971 continued.

SDC-1-0	24	1613.8	3.30	SDC-1-2	24	599.8	3.16
ANABAENA SP.		3.7	0.23	ANABAENA SP.		0.9	0.15
ANKISTRODESMUS FALCATUS V. MIRABILIS		11.1	0.69	ANACYSTIS SP.		1.9	0.31
ANKISTRODESMUS SP.		3.7	0.23	ANKISTRODESMUS FALCATUS V. MIRABILIS		4.6	0.77
ASTERICNELLA FORMOSA		3.7	0.23	ANKISTRODESMUS GELIFACTUS		1.9	0.31
BLUE-GREEN UNKNOWN FILAMENT		40.8	2.53	ANKISTRODESMUS SP.		0.9	0.15
CHLAMYDOMONAS SP.		237.4	14.71	BLUE-GREEN UNKNOWN FILAMENT		7.4	1.24
CHLORELLA SP.		3.7	0.23	CHLAMYDOMONAS SP.		44.5	7.42
CLADOPHORA SP.		3.7	0.23	COSMARUM SP.		1.9	0.31
CLOSTERIUM SP.		3.7	0.23	CRYPTOCYNAS SP.		3.7	0.62
CYCLOTELLA SP.		237.4	14.71	CYCLOTELLA SP.		41.7	6.96
FRAGILARIA CROTONEUSIS		159.5	9.89	DINOBRYON DIVERGENS		2.8	0.46
GLOEUCYSTIS SP.		7.4	0.46	FRAGILARIA CROTONEUSIS		3.7	0.62
GLOEUCYSTIS SP.		77.9	4.83	FRAGILARIA SP.		145.5	24.27
HELOSIRA SP.		81.6	5.06	GLOEUCYSTIS SP.		5.6	0.93
NITZSCHIA SP.		3.7	0.23	HELOSIRA ISLANDICA		17.6	2.94
OCHROMONAS SP.		192.9	11.95	HELOSIRA SP.		74.2	12.34
ODCYSTIS SP.		7.4	0.46	MICROCYNAS SP.		0.9	0.15
OSCILLATORIA SP.		3.7	0.23	ODCYSTIS SP.		129.8	21.64
SCENEDESMUS BIJUGA		3.7	0.23	OSCILLATORIA SP.		1.9	0.31
SCENEDESMUS SP.		51.9	3.22	SCENEDESMUS SP.		0.9	0.15
STEPHANODISCUS SP.		374.7	23.22	SYNEDRA SP.		2.8	0.46
SYNEDRA ULNA		3.7	0.23	STEPHANODISCUS SP.		28.7	4.79
TABELLARIA FENESTRATA		92.8	5.75	SYNEDRA SP.		6.9	0.15
TETRAEDRUM MINIMUM		3.7	0.23	TABELLARIA FENESTRATA		75.1	12.52

SDC-1-1	21	556.2	3.32	SDC-1-3	25	268.2	3.55
ANKISTRODESMUS FALCATUS V. MIRABILIS		3.7	0.67	ANKISTRODESMUS FALCATUS V. MIRABILIS		1.9	0.69
BLUE-GREEN UNKNOWN FILAMENT		0.9	0.17	ANKISTRODESMUS GELIFACTUS		0.5	0.17
BLUE-GREEN UNKNOWN FILAMENT		4.6	0.83	ANKISTRODESMUS SP.		6.9	0.35
CHLAMYDOMONAS SP.		53.8	9.67	BLUE-GREEN UNKNOWN FILAMENT		6.5	2.42
CLOSTERIUM SP.		0.9	0.17	CHLAMYDOMONAS SP.		28.8	10.73
CRYPTOCYNAS SP.		8.3	1.50	CLOSTERIUM SP.		1.4	0.52
CYCLOTELLA SP.		74.2	13.33	COELASTRUM SP.		4.6	1.73
DINOBRYON DIVERGENS		0.9	0.17	CRYPTOCYNAS SP.		1.9	0.69
FRAGILARIA CROTONEUSIS		77.9	14.00	CYCLOTELLA SP.		12.1	4.50
GLOEUCYSTIS SP.		9.3	1.67	DINOBRYON DIVERGENS		30.6	11.42
GCMPOSP-AERIA SP.		0.9	0.17	FLAGELLATES		1.9	0.69
HELOSIRA ISLANDICA		21.3	3.83	FRAGILARIA CROTONEUSIS		6.5	0.17
HELOSIRA SP.		77.9	14.00	FRAGILARIA SP.		41.8	15.57
MICROCYNAS SP.		0.9	0.17	GLOEUCYSTIS SP.		2.3	0.87
ODCYSTIS SP.		70.5	12.67	GREEN FILAMENT, UNKNOWN		3.7	1.38
SCENEDESMUS SP.		3.7	0.67	HELOSIRA ISLANDICA		0.5	0.17
STEPHANODISCUS SP.		5.6	1.00	HELOSIRA SP.		2.8	1.04
SYNEDRA SP.		47.3	8.50	MELOSIRA SP.		26.4	9.86
SYNEDRA ULNA		0.9	0.17	NAVICULA SP.		0.5	0.17
TABELLARIA FENESTRATA		90.8	16.33	OCHROMONAS SP.		0.5	0.17
				ODCYSTIS SP.		56.6	21.11
				SCENEDESMUS SP.		0.9	0.35
				STEPHANODISCUS SP.		11.1	4.15
				TABELLARIA FENESTRATA		14.4	5.36
						19.3	5.71

Appendix B, 15 April 1971 continued.

SDC-2-0	21	1728.5	3.07	SDC-2-2	21	254.1	3.33
BLUE-GREEN UNKNOWN FILAMENT				ANABAENA SP.		1.9	0.73
CHLAMYDOMONAS SP.	7.4		0.43	ANACYSTIS SP.		1.9	0.73
CLADOPHORA SP.	252.3		14.59	ANKISTRODESMUS FALCATUS V. MIRABILIS		0.9	0.36
CLOSTERIUM SP.	3.7		0.21	ANKISTRODESMUS SP.		0.9	0.36
COELASTRUM SP.	3.7		0.21	BLUE-GREEN UNKNOWN FILAMENT		11.1	4.38
COSMARIUM SP.	3.7		0.21	CHLAMYDOMONAS SP.		22.4	8.81
CYCLOTELLA SP.	7.4		0.43	CRUCIGENIA SP.		2.8	1.09
CYMATOPLEURA SOLEA	352.4		20.39	CRYPTOMONAS SP.		2.8	1.09
DINOBRYON DIVERGENS	3.7		0.21	CYCLOTELLA SP.		1.9	0.73
FLAGELLATES	3.7		0.21	DINOBRYON DIVERGENS		0.9	0.36
FRAGILARIA CROTUNENSIS	7.4		0.43	FRAGILARIA SP.		11.1	4.38
GLUEOCYSTIS SP.	211.5		12.23	GLUEOCAPSA SP.		3.7	1.46
GOMPHOCNEPS SP.	26.0		1.50	GLUEOCYSTIS SP.		12.9	5.47
MELUSIRA SP.	3.7		0.21	MELUSIRA SP.		24.1	9.44
UCHRODOMONAS SP.	48.2		2.79	UCHROMONAS SP.		64.9	23.53
UOCYSTIS SP.	307.9		17.81	UOCYSTIS SP.		2.8	1.09
SCENEDESMUS SP.	11.1		0.44	SCENEDESMUS SP.		2.8	1.09
STEPHANODISCUS SP.	7.4		0.43	STEPHANODISCUS SP.		11.1	4.38
SYMEDRA SP.	278.2		16.09	TABELLARIA FENESTRATA		14.8	5.84
TABELLARIA FENESTRATA	26.0		1.50	TETRAEDRON MINIMUM		56.5	22.25
TETRAEDRON MINIMUM	159.5		9.22			0.9	0.36
	3.7		0.21				

SDC-2-3	16	764.3	3.02	SDC-2-3	24	325.7	3.37
ANKISTRODESMUS FALCATUS V. MIRABILIS				ANKISTRODESMUS FALCATUS V. MIRABILIS		1.9	0.57
ANKISTRODESMUS SP.				ANKISTRODESMUS SP.		0.5	0.14
APHANOTHECE SP.				APHANOTHECE SP.		0.5	0.14
BLUE-GREEN UNKNOWN FILAMENT				BLUE-GREEN UNKNOWN FILAMENT		0.5	0.14
CHLAMYDOMONAS SP.	1.9		0.24	CHLAMYDOMONAS SP.		41.3	12.64
CHLAMYDOMONAS SP.	7.4		0.97	CHLAMYDOMONAS SP.		0.5	0.14
COELASTRUM SP.	107.6		14.08	CHLAMYDOMONAS SP.		0.5	0.14
CLOSTERIUM SP.	1.9		0.24	CLOSTERIUM SP.		0.5	0.14
CRYPTOMONAS SP.	22.3		2.91	COELASTRUM SP.		2.3	0.71
CYCLOTELLA SP.	74.2		9.71	CRYPTOMONAS SP.		0.9	0.24
DINOBRYON DIVERGENS	1.9		0.24	CYCLOTELLA SP.		54.3	16.67
FRAGILARIA CROTUNENSIS	57.5		7.52	DINOBRYON DIVERGENS		3.2	1.00
GLUEOCYSTIS SP.	7.4		0.97	FRAGILARIA CROTUNENSIS		42.7	13.11
MELOSIRA ISLANDICA	3.7		0.49	GLUEOCYSTIS SP.		1.9	0.57
MELUSIRA SP.	44.5		5.83	MELOSIRA ISLANDICA		18.1	5.55
UCHROMONAS SP.	96.5		12.62	MELUSIRA SP.		42.2	13.25
SCENEDESMUS BILUGA	1.9		0.24	NITZSCHIA SP.		0.5	0.14
SCENEDESMUS SP.	16.7		2.18	UCHROMONAS SP.		39.0	11.97
TABELLARIA FENESTRATA	230.0		30.10	UOCYSTIS SP.		1.4	0.43
	89.0		11.65	PERIDINIUM SP.		0.5	0.14
				SCENEDESMUS SP.		3.7	1.14
				STEPHANODISCUS SP.		20.0	6.13
				SYMEDRA SP.		1.4	0.43
				TABELLARIA FENESTRATA		41.3	12.68
				TETRAEDRON MINIMUM		0.5	0.14

Appendix B, 15 April 1971 continued.

SDC-2-4	25	219.0	3.01	SDC-4-2	20	275.6	3.23
ANACYSTIS SP.		C.5	0.21	ANKISTRODESCHMUS FALCATUS V. MIRABILIS		1.4	0.51
ANKISTRODESCHMUS FALCATUS		2.8	1.27	BLUE-GREEN UNKNOWN FILAMENT		5.1	1.85
ANKISTRODESCHMUS GELIFACTUS		C.5	0.42	CHLAMYDOMONAS SP.		18.1	6.57
ANKISTRODESCHMUS GELIFACTUS		C.5	0.21	COELASTRUM SP.		2.3	0.84
BLUE-GREEN UNKNOWN FILAMENT		4.2	1.91	CGSMARIUM SP.		0.5	0.17
CHLAMYDOMONAS SP.		7.9	3.60	CRUCIGENIA SP.		C.5	0.17
CLOSTERIUM SP.		1.4	0.64	CRYPTOMONAS SP.		C.9	0.34
COELASTRUM SP.		5.1	2.33	CYCLUTELLA SP.		27.4	9.93
COSMARIUM SP.		1.4	0.64	DINORRYON DIVERGENS		1.4	0.51
CRYPTOMONAS SP.		2.8	1.27	FRAGILARIA CROTONENSIS		66.4	24.07
CYCLUTELLA SP.		6.5	2.97	GLOEUCYSTIS SP.		3.2	1.18
DINORRYON DIVERGENS		1.9	0.85	MELOSIRA ISLANDICA		9.7	3.54
FLAGELLATES		0.5	0.21	MELUSIRA SP.		47.3	17.17
FRAGILARIA CROTONENSIS		34.9	15.89	OCHROMONAS SP.		10.7	3.87
FRAGILARIA SP.		2.3	1.06	OOCYSTIS SP.		2.8	1.01
GLOEUCYSTIS SP.		1.9	0.85	OSCILLATORIA SP.		C.5	0.17
MELOSIRA SP.		36.2	16.53	SCENEDESMUS SP.		C.0	2.19
NAVICULA SP.		0.5	0.21	STEPHANODISCUS SP.		18.6	6.73
OCHROMONAS SP.		84.4	38.56	SYNEORA SP.		2.8	1.01
OOCYSTIS SP.		0.5	0.21	TABELLARIA FENESTRATA		50.1	18.18
SCENEDESMUS SP.		4.6	2.12				
STEPHANODISCUS SP.		5.1	2.33				
SYNEORA SP.		C.5	0.21				
TABELLARIA FENESTRATA		11.6	5.30				
TETRAEDRON MINIMUM		0.5	0.21				
SDC-4-0	23	1027.7	3.32	SDC-4-3	22	196.3	3.14
ANKISTRODESCHMUS FALCATUS V. MIRABILIS		7.4	0.72	ANABAENA CIRCINALIS		0.5	0.24
ANKISTRODESCHMUS GELIFACTUS		3.7	0.36	ANABAENA SP.		C.5	0.24
BLUE-GREEN UNKNOWN FILAMENT		7.4	0.72	ANACYSTIS SP.		0.5	0.24
CHLAMYDOMONAS SP.		148.4	14.44	ANKISTRODESCHMUS FALCATUS V. MIRABILIS		2.3	1.18
CRUCIGENIA SP.		3.7	0.36	ANKISTRODESCHMUS SP.		C.5	0.24
CYCLUTELLA SP.		122.4	11.91	BLUE-GREEN UNKNOWN FILAMENT		2.8	1.42
DINORRYON DIVERGENS		7.4	0.72	CHLAMYDOMONAS SP.		6.5	3.31
FRAGILARIA CROTONENSIS		144.7	14.08	COELASTRUM SP.		C.9	0.47
FRAGILARIA SP.		11.1	1.08	CRYPTOMONAS SP.		7.0	3.55
GLOEUCYSTIS SP.		18.5	1.81	CYCLUTELLA SP.		10.7	5.44
GCHAPHONEPA SP.		3.7	0.36	DINORRYON DIVERGENS		4.2	2.13
MELOSIRA ISLANDICA		3.7	0.36	FRAGILARIA CROTONENSIS		7.4	3.78
MELOSIRA SP.		14.8	1.44	GLOEUCYSTIS SP.		1.4	0.71
NITZSCHIA SP.		3.7	0.36	MELOSIRA SP.		2.8	1.42
OCHROMONAS SP.		226.3	22.02	MELOSIRA SP.		52.9	26.95
OOCYSTIS SP.		7.4	0.72	OCHROMONAS SP.		44.5	22.70
SCENEDESMUS SP.		11.1	1.08	OOCYSTIS SP.		1.4	0.71
SPHAEROCYSTIS SP.		29.7	2.89	PERIDIUM SP.		0.5	0.24
STEPHANODISCUS SP.		144.7	14.08	SCENEDESMUS SP.		4.2	2.13
SYNEORA SP.		7.4	0.72	STEPHANODISCUS SP.		7.0	3.55
SYNEORA ULNA		85.0	8.66	TABELLARIA FENESTRATA		36.7	18.68
TABELLARIA FENESTRATA		7.4	0.72	TETRAEDRON MINIMUM		1.4	0.71
TETRAEDRON MINIMUM							

Appendix B, 15 April 1971 continued.

SDC-4-4	11	23.2	2.48	SDC-7-2	24	449.6	3.28
ANKISTRODESMUS FALCATUS V. MIRABILIS				ANABAENA CIRCINALIS		C.5	0.10
ANKISTRODESMUS GELIFACTUS		C.5	2.00	ANABAENA SP.		0.5	0.10
BLUE-GREEN UNKNOWN FILAMENT		0.5	2.00	ANACYSTIS SP.		C.5	0.10
CHLAMYDOMONAS SP.		1.4	6.00	ANKISTRODESMUS FALCATUS V. MIRABILIS		4.2	0.93
CRYPTOCYNAS SP.		1.9	8.00	BLUE-GREEN UNKNOWN FILAMENT		0.4	1.06
FRAGILARIA CROTUNENSIS		0.5	2.00	CHLAMYDOMONAS SP.		62.6	13.93
GLOEUCYSTIS SP.		C.5	2.00	COELASTRUM SP.		2.8	0.62
MELOSIRA SP.		2.3	10.00	CCSMARIUM SP.		0.9	0.21
UCHROMONAS SP.		11.1	48.00	CRYPTOCYNAS SP.		7.4	1.65
STEPHANODISCUS SP.		0.5	2.00	CYCLotella SP.		45.5	10.11
TABELLARIA FENESTRATA		3.7	16.00	DICTYOSPHAERIUM SP.		0.5	0.10
				DINOBRYON DIVERGENS		5.1	1.14
				FRAGILARIA CROTUNENSIS		31.6	7.02
				FRAGILARIA SP.		0.9	0.21
				GLOEUCYSTIS SP.		2.8	0.62
				MELOSIRA GRANULATA		4.2	0.93
				MELOSIRA SP.		44.1	9.80
				NITZSCHIA SP.		C.5	0.10
				OCHROMONAS SP.		63.6	14.14
				OOCYSTIS SP.		1.9	0.41
				OSCILLATORIA SP.		0.9	0.21
				SCENEDESMUS SP.		3.2	0.72
				STEPHANODISCUS SP.		56.5	21.47
				TABELLARIA FENESTRATA		60.8	13.52
SDC-7-1	21	543.2	3.07	SDC-7-3	19	274.2	3.28
ANABAENA SP.		C.9	0.17	ANACYSTIS SP.		C.9	0.34
ANACYSTIS SP.		0.9	0.17	ANKISTRODESMUS FALCATUS V. MIRABILIS		2.3	0.85
ANKISTRODESMUS FALCATUS V. MIRABILIS		1.9	0.34	BLUE-GREEN UNKNOWN FILAMENT		6.5	2.37
APHANOTHECE SP.		C.9	0.17	CHLAMYDOMONAS SP.		32.4	12.14
BLUE-GREEN UNKNOWN FILAMENT		4.6	0.85	COELASTRUM SP.		0.9	0.34
CHLAMYDOMONAS SP.		27.8	5.12	CRYPTOCYNAS SP.		4.6	1.69
COELASTRUM SP.		2.8	0.51	CYCLotella SP.		22.7	8.29
CRYPTOCYNAS SP.		56.7	10.07	DINOBRYON DIVERGENS		3.7	1.35
CYCLotella SP.		1.9	0.34	FRAGILARIA CROTUNENSIS		26.0	9.48
DINOBRYON DIVERGENS		47.3	8.70	GLOEUCYSTIS SP.		1.4	0.51
FRAGILARIA CROTUNENSIS		2.8	0.51	MELOSIRA ISLANDICA		5.1	1.86
GLOEUCYSTIS SP.		0.9	0.17	MELOSIRA SP.		27.8	10.15
MELOSIRA ISLANDICA		59.3	10.92	OCHROMONAS SP.		43.6	15.91
MELOSIRA SP.		76.9	14.16	OOCYSTIS SP.		0.9	0.34
OCHROMONAS SP.		3.7	0.60	SCENEDESMUS SP.		1.4	0.51
OOCYSTIS SP.		0.9	0.17	STEPHANODISCUS SP.		45.5	16.50
OSCILLATORIA SP.		C.9	0.17	SYNEDRA SP.		C.5	0.17
PLEUROSIGMA DELICATULUM		13.9	2.56	TABELLARIA FENESTRATA		46.4	16.92
SCENEDESMUS SP.		128.9	23.72	TETRAEDRUM MINIMUM		0.5	0.17
STEPHANODISCUS SP.		108.5	19.97				
TABELLARIA FENESTRATA							

Appendix B, 15 April 1971 continued.

SDC-7-4	24	179.6	3.37
ANABAENA SP.		C.5	0.26
ANKISTRODESMUS FALCATUS V. MIRABILIS		C.9	0.52
ANKISTRODESMUS SP.		0.5	0.26
BLUE-GREEN UNKNOWN FILAMENT		5.6	3.10
CHLAMYDOMONAS SP.		8.4	4.65
CHROOCOCCUS SP.		0.5	0.26
COELASTRUM SP.		2.3	1.29
CCSMARIUM SP.		0.5	0.26
CRYPTOMONAS SP.		1.4	0.78
CYCLUTELLA SP.		8.8	4.91
DINOBRYON DIVERGENS		2.3	1.29
FRAGILARIA CROTONENSIS		14.8	8.27
MELOSIRA ISLANDICA		6.5	3.62
MELOSIRA SP.		34.8	19.38
MGUGEOITIA SP.		0.9	0.52
UCHROMONAS SP.		34.8	19.38
OOCYSTIS SP.		C.9	0.52
OSCILLATORIA SP.		0.9	0.52
RHIZOLENIA ERIENSIS		C.5	0.26
SCENEJESMUS SP.		3.7	2.07
STEPHANODISCUS SP.		13.9	7.75
SYNEDRA SP.		0.9	0.52
TABELLARIA FENESTRATA		34.8	19.38
TETRAEDRON MINIMUM		0.5	0.26

SDC-7-5	24	177.2	3.14
ANACYSTIS SP.		1.4	0.79
ANKISTRODESMUS FALCATUS V. MIRABILIS		1.4	0.79
ANKISTRODESMUS GELIFACTUS		0.5	0.26
ANKISTRODESMUS SP.		1.9	1.05
BLUE-GREEN UNKNOWN COLONY		0.5	0.26
BLUE-GREEN UNKNOWN FILAMENT		2.8	1.57
CHLAMYDOMONAS SP.		7.4	4.19
COELASTRUM SP.		0.9	0.52
CRYPTOMONAS SP.		0.9	0.52
CRYPTOMONAS SP.		3.7	2.09
CYCLUTELLA SP.		7.9	4.45
DINOBRYON DIVERGENS		0.9	0.52
FRAGILARIA CROTONENSIS		6.5	3.66
FRAGILARIA SP.		C.9	0.52
GLOEOCYSTIS SP.		7.0	3.93
MELOSIRA ISLANDICA		7.9	4.45
MELOSIRA SP.		45.5	25.65
UCHROMONAS SP.		56.6	31.94
OOCYSTIS SP.		0.9	0.52
OSCILLATORIA SP.		0.5	0.26
SCENEJESMUS SP.		1.4	0.79
STEPHANODISCUS SP.		3.7	2.09
TABELLARIA FENESTRATA		15.8	8.90
TETRAEDRON MINIMUM		C.5	0.26



Appendix B continued, 9 July 1971.

DC-2	36	1305.3	1.20
ACTINASTRUM HANTZSCHII V. FLUVIATILE			
ANADYENA SP.	1.4	0.11	
ANACYSTIS SP.	18.1	1.39	
ANKISTRUDESMUS FALCATUS V. MIRABILIS	0.5	0.04	
ANKISTRUDESMUS SP.	7.9	0.60	
ANKISTRUDESMUS SP.	0.9	0.07	
BLUE-GREEN UNKNOWN FILAMENT	6.0	0.46	
CHLAMYDOMONAS SP.	1.9	0.14	
CLUSTERIUM ACIRCULARE	0.5	0.04	
CLUSTERIUM SP.	0.5	0.04	
COELASTRUM SP.	0.5	0.04	
COSMARIUM SP.	3.2	0.25	
CRYPTOMONAS SP.	7.0	0.53	
CYCLITELLA SP.	11.1	0.85	
DINIJRYON DIVERGENS	14.4	1.10	
DINIJRYON PEDIFORME	0.5	0.04	
FLAGELLATES	3.7	0.28	
FRAGILARIA CAPUCINA	2.8	0.21	
FRANCEIA DROESCHERI	6.5	0.50	
GLENIDINIUM SP.	22.3	1.71	
GLUECYSTIS SP.	1118.3	85.67	
KIRCHNERIELLA SP.	7.4	0.57	
LAGEHEITIA SP.	4.2	0.32	
MELUSTRA SP.	2.3	0.18	
UCHUMONAS SP.	0.5	0.04	
UEDJINIUM SP.	4.6	0.36	
UDOCYSTIS SP.	26.0	1.99	
PEDIASTRUM BURYANUM	0.5	0.04	
PEDIASTRUM DUPLEX	0.9	0.07	
PERIDIUM SP.	0.5	0.04	
SCENEDESMUS SP.	13.0	1.00	
SPHAEROCYSTIS SP.	7.4	0.57	
STEPHANODISCUS SP.	0.9	0.07	
TABELLARIA FENESTRATA	6.0	0.46	
TETRAEDRUM CAUDATUM	0.5	0.04	
TETRAEDRUM MINIMUM	2.3	0.18	
TETRAEDRUM SP.	0.5	0.04	
DC-3	26	177.0	3.13
ANABATNA SP.		4.2	2.36
ANKISTRUDESMUS FALCATUS V. MIRABILIS		1.4	0.79
ANKISTRUDESMUS SP.		0.5	0.26
BLUE-GREEN UNKNOWN FILAMENT		1.9	1.05
COSMARIUM SP.		6.0	3.41
CAUCIGENIA SP.		0.5	0.26
CRYPTOMONAS SP.		6.5	3.67
CYCLITELLA SP.		2.8	1.57
DINIJRYON DIVERGENS		19.0	10.75
DINIJRYON PEDIFORME		6.5	3.67
FLAGELLATES		0.5	0.26
FRANCEIA DROESCHERI		2.8	1.57
GLENIDINIUM SP.		12.1	6.82
GLUECYSTIS SP.		74.7	42.21
KIRCHNERIELLA SP.		2.3	1.31
LAGEHEITIA SP.		0.9	0.52
MICKACTINIUM SP.		0.5	0.26
NITZSCHIA SP.		0.5	0.26
UCHUMONAS SP.		6.5	3.67
UEDJINIUM SP.		0.5	0.26
UDOCYSTIS SP.		19.2	10.85
PERIDIUM SP.		1.4	0.79
SCENEDESMUS SP.		4.6	2.42
STEPHANODISCUS SP.		0.5	0.26
TABELLARIA FENESTRATA		0.5	0.26
TETRAEDRUM MINIMUM		0.5	0.26

[illegible]

US-6	21	142.0	2.69
ANATIANA SP.	7.9	5.56	
ANKISTIPULSMUS FALCATUS V. MINAHILIS	0.7	0.05	
ANKISTIPULSMUS GELIFACTUS	0.9	0.05	
BLUE-GREEN UROKYN FILAMENT	1.4	0.98	
INTIPULGUS BRAUNII	0.23	0.23	
CLUSTENTUS ACTICULANE	0.5	0.33	
CUSNARIUM SP.	0.5	0.33	
CRYPTOPHUS SP.	1.5	1.31	
CYCLITELLA SP.	1.9	1.31	
DINGRYON DIVERGENS	35.3	24.84	
DINGRYON PEDIFURME	7.0	4.90	
FRAGILARIA CAUTUNENSIS	0.5	0.33	
FRAGILARIA URUSCHENT	0.9	0.05	
GLERJINTIUM SP.	2.3	1.03	
GLUCYCISTIS SP.	60.3	42.48	
KINGMERIELLA SP.	0.9	0.05	
LAGERHOLMIA SP.	1.9	1.31	
UCHKUNUMUS SP.	6.5	4.58	
UDOUNIUM SP.	0.5	0.33	
UDUCYSTIS SP.	9.3	6.54	
SCENEULSMUS SP.	0.5	0.33	
NOC 25-1	35	299.7	3.15
ANATIANA SP.		10.2	3.41
ANKISTIPULSMUS FALCATUS V. MINAHILIS		9.7	3.23
ANKISTIPULSMUS GELIFACTUS		0.9	0.31
BLUE-GREEN UROKYN FILAMENT		2.3	0.77
CERATIUM HIRUDINELLA		0.5	0.15
CHLADONUMUS SP.		0.5	0.15
GLERJINTIUM SP.		0.5	0.15
GUSNARIUM SP.		4.2	1.59
CRUCIENIA APICULATA		0.5	0.15
CRYPTOPHUS SP.		4.6	1.55
CYCLITELLA SP.		18.6	6.19
DINGRYON DIVERGENS		15.3	5.11
DINGRYON PEDIFURME		1.4	0.46
FRAGILARIA CAUTUNENSIS		0.5	0.15
FRAGILARIA URUSCHENT		3.2	1.08
GLERJINTIUM SP.		1.9	0.82
GLUCYCISTIS SP.		23.7	7.89
KINGMERIELLA SP.		138.7	46.29
LAGERHOLMIA SP.		5.1	1.70
UCHKUNUMUS SP.		2.3	0.77
UDOUNIUM SP.		0.9	0.31
UDUCYSTIS SP.		0.9	0.31
UDOUNIUM SP.		6.0	2.01
UDUCYSTIS SP.		29.7	9.91
PEDISTRIUM DUPLEX		1.4	0.46
PERJINTIUM SP.		2.3	0.77
SCENEULSMUS BIJUGA		0.9	0.31
SCENEULSMUS JUARICAUDA		0.5	0.15
SCENEULSMUS SP.		1.4	0.46
SPHAERUCYSTIS SP.		3.7	1.24
STEPHANULISCUS SP.		0.5	0.15
SYNDRIA FILIFORMIS		0.5	0.15
TABELLARIA FENESTRATA		3.1	1.07
TETRAEDRON CAUDATUM		0.5	0.15
TETRAEDRON MINIMUM		0.9	0.31
NOC 25-2	33	716.0	3.62
ACTIVASTRIUM HINTZSCHII V. FLUVIATILE		1.9	0.26
ANATIANA SP.		5.6	0.78
ANKISTIPULSMUS FALCATUS V. MINAHILIS		14.8	2.07
BLUE-GREEN UROKYN FILAMENT		7.4	1.04
CHLADONUMUS SP.		7.4	1.04
CLADONUMUS SP.		1.9	0.26
CLUSTENTIUM SP.		1.9	0.26
CUSNARIUM SP.		0.6	0.78
CRYPTOPHUS SP.		11.1	1.55
CYCLITELLA SP.		39.0	5.44
DINGRYON DIVERGENS		11.1	1.55
DINGRYON PEDIFURME		1.9	0.26
FRAGILARIA CAUTUNENSIS		9.3	1.30
FRAGILARIA URUSCHENT		6.2	0.85
GLERJINTIUM SP.		4.5	0.62
GLUCYCISTIS SP.		1.9	0.26
GLERJINTIUM SP.		66.8	9.33
KINGMERIELLA SP.		231.9	32.38
LAGERHOLMIA SP.		7.4	1.04
NAVICULA SP.		7.4	1.04
NITZSCHIA SP.		1.9	0.26
ODOUNIUM SP.		5.6	0.78
UDUCYSTIS SP.		5.6	0.78
SCENEULSMUS UROPHUS		59.4	8.29
SCENEULSMUS JUARICAUDA		1.9	0.26
SCENEULSMUS SP.		3.7	0.52
STEPHANULISCUS SP.		55.6	7.77
SYNDRIA ULNA		3.7	0.52
TABELLARIA FENESTRATA		1.9	0.26
TETRAEDRON CAUDATUM		27.8	3.89
TETRAEDRON MINIMUM		1.9	0.26
		5.6	0.78

**CON .5-2**

96

Appendix B, 9 July 1971 continued.

WDC 1-0	32	504.6	3.67	NUC 1-1	33	421.1	3.51
ANABAENA SP.		3.7	0.74	ACTINASTRUM HANTZSCHII V. FLUVIATILE		0.9	0.15
ANKISTRUESHUS FALCATUS V. MINABILIS		7.4	1.47	ANABAENA SP.		0.9	0.15
ANKISTRUESHUS SP.		3.7	0.74	ANABAENA SP.		10.2	1.64
APHANOTHECE SP.		1.9	0.37	ANKISTRUESHUS FALCATUS		16.7	2.69
BLUE-GREEN UNKNOWN FILAMENT		5.6	1.10	ANKISTRUESHUS GELIFACTUS		3.7	0.60
CHLAMYDOMONAS SP.		7.4	1.47	ANKISTRUESHUS SP.		0.9	0.15
CUSMARUM SP.		5.6	1.10	BLUE-GREEN UNKNOWN FILAMENT		6.5	1.04
CRYPTOCHLORIS SP.		9.3	1.84	CHLAMYDOMONAS SP.		0.9	0.15
CYCLotella SP.		31.5	6.25	CUSMARUM SP.		2.8	0.45
DIATOMA VULGARE		1.9	0.37	CRYPTOCHLORIS SP.		13.0	2.09
DINOMYX DIVERGENS		15.8	2.94	CYCLotella SP.		18.5	2.99
DINOMYX PEDIFURME		1.9	0.37	DINOMYX DIVERGENS		48.2	7.76
FLAGELLATES		3.7	0.74	DINOMYX PEDIFURME		31.5	5.07
FRAGILARIA CAPUCINA		27.8	5.51	FLAGELLATES		1.9	0.30
FRAGILARIA CROTUNENSIS		22.3	4.41	FRAGILARIA CROTUNENSIS		13.0	2.09
FRANCEIA DRUESCHERI		9.3	1.84	FRANCEIA DRUESCHERI		0.9	0.15
GLENIDINIUM SP.		29.7	5.88	FRANCEIA SP.		11.1	1.79
GLENIDINIUM SP.		178.1	35.29	GLENIDINIUM SP.		0.9	0.15
KIRCHNERIELLA SP.		1.9	0.37	GLUEICYSTIS SP.		43.6	7.02
LAGERHEIMIA SP.		1.9	0.37	KIRCHNERIELLA SP.		201.2	32.39
MELOSIRA SP.		7.4	1.47	LAGERHEIMIA SP.		3.7	0.60
NAVICULA SP.		1.9	0.37	OCCHROMONAS SP.		1.9	0.30
NITZSCHIA SP.		1.9	0.37	OCCHROMONAS SP.		6.5	1.04
OCCHROMONAS SP.		3.7	0.74	OCCHROMONAS SP.		7.4	1.19
ODONOSTOMA SP.		37.1	7.35	ODONOSTOMA SP.		94.6	15.22
PEDICULUS SP.		1.9	0.37	OSCILLATORIA SP.		0.9	0.15
PERIDINIUM SP.		1.9	0.37	SCENEDESMUS QUADRICAUDA		0.9	0.15
SCENEDESMUS QUADRICAUDA		3.7	0.74	SCENEDESMUS SP.		43.6	7.02
SCENEDESMUS SP.		39.0	7.72	STEPHANODISCUS SP.		0.9	0.15
SPIROGYRA SP.		5.6	1.10	TABELLARIA FENESTRATA		24.0	4.18
TABELLARIA FENESTRATA		27.8	5.51	TETRAEDRUM CAUDATUM		2.8	0.45
TETRAEDRUM MINIMUM		3.7	0.74	TETRAEDRUM MINIMUM		0.9	0.15
				WESTELLA LINEARIS		3.7	0.60

Appendix B, 9 July 1971 continued.

NOC 1-3			24			97.4			3.29		
NOC 1-2			38			267.3			3.54		
ACTINASTRUM HANTZSCHII V. FLUVIATILE			2.3			0.87			0.95		
ANABAENA SP.			6.0			2.26			0.95		
ANKISTRODESMUS FALCATUS V. MIRABILIS			7.0			2.60			1.43		
ANKISTRODESMUS SP.			0.9			0.35			0.5		
BLUE-GREEN UNKNOWN FILAMENT			2.8			1.04			0.5		
CHLAMYDOMONAS SP.			1.9			0.69			0.5		
COELASTRUM SP.			1.4			0.52			0.5		
COSMARION SP.			1.4			0.52			0.5		
CRUCIGENIA SP.			1.9			0.69			0.5		
CRYPTOMONAS SP.			1.9			0.69			0.5		
CYCLOTILLA SP.			13.0			4.86			1.90		
DINOMYXON DIVERGENS			16.2			6.08			0.5		
DINOMYXON PEDIFURME			3.7			1.59			0.5		
FLAGELLATES			4.6			1.74			0.5		
FRAGILARIA CRUTONENSIS			0.5			0.17			0.5		
FRANCEIA DRIESCHERI			4.2			1.56			0.5		
FRANCEIA SP.			0.5			0.17			0.5		
GLENIDINIUM SP.			20.4			7.64			0.5		
GLUEOCYSTIS SP.			103.9			38.89			0.5		
KIRCHNERIELLA SP.			0.9			0.35			0.5		
LAGERHEIMIA SP.			0.9			0.35			0.5		
MICRACETINIUM SP.			0.5			0.17			0.5		
NITZSCHIA SP.			0.9			0.35			0.5		
UCHROMONAS SP.			4.2			1.56			0.5		
UEDOGUNIUM SP.			4.2			1.56			0.5		
UDOCYSTIS SP.			24.1			9.03			0.5		
PEDIASTRUM BORYANUM			0.9			0.35			0.5		
PEDIASTRUM DUPLEX			0.5			0.17			0.5		
PEDIASTRUM OBTUSUM			0.5			0.17			0.5		
PERIDINIUM SP.			0.5			0.17			0.5		
SCENEDESMUS BIJUGA			0.5			0.17			0.5		
SCENEDESMUS QUADRICAUDA			1.4			0.52			0.5		
SCENEDESMUS SP.			15.8			5.90			0.5		
STAUASTRUM SP.			0.5			0.17			0.5		
STEPHANODISCUS SP.			0.5			0.17			0.5		
SYNEUKA FILIFORMIS			0.5			0.17			0.5		
TABELLARIA FENESTRATA			11.6			4.34			0.5		
TETRAEDRUM MINIMUM			4.2			1.56			0.5		
NOC 2-0			34			912.2			2.92		
ACTINASTRUM HANTZSCHII V. FLUVIATILE			1.9			6.5			0.71		
ANABAENA SP.			15.8			3.7			0.41		
ANKISTRODESMUS FALCATUS V. MIRABILIS			0.9			0.9			0.10		
BLUE-GREEN UNKNOWN FILAMENT			0.9			0.9			0.10		
CHLAMYDOMONAS SP.			0.9			0.9			0.10		
COSMARION SP.			3.7			3.7			0.41		
CYCLOTILLA SP.			17.6			17.6			1.93		
DINOMYXON DIVERGENS			6.5			6.5			0.71		
DINOMYXON PEDIFURME			3.7			3.7			0.41		
FLAGELLATES			17.6			17.6			1.93		
FRAGILARIA CAPUTINA			13.0			13.0			1.42		
FRAGILARIA CRUTONENSIS			6.5			6.5			0.71		
FRANCEIA DRIESCHERI			50.1			50.1			5.49		
GLENIDINIUM SP.			268.8			268.8			29.47		
GLUEOCYSTIS SP.			5.6			5.6			0.61		
KIRCHNERIELLA SP.			1.9			1.9			0.20		
LAGERHEIMIA SP.			2.8			2.8			0.30		
MELUSINA SP.			335.6			335.6			36.79		
MERISMOPEDIA SP.			1.9			1.9			0.20		
UCHROMONAS SP.			8.3			8.3			0.91		
UEDOGUNIUM SP.			45.4			45.4			4.98		
UDOCYSTIS SP.			0.9			0.9			0.10		
USCILLATORIA SP.			0.9			0.9			0.10		
PEDIASTRUM BORYANUM			0.9			0.9			0.10		
PERIDINIUM SP.			0.9			0.9			0.10		
SCENEDESMUS BIJUGA			0.9			0.9			0.10		
SCENEDESMUS DIMORPHUS			1.9			1.9			0.20		
SCENEDESMUS QUADRICAUDA			44.5			44.5			4.88		
SCENEDESMUS SP.			28.7			28.7			3.15		
TABELLARIA FENESTRATA			1.9			1.9			0.20		
TETRAEDRUM CAUDATUM			4.6			4.6			0.51		
TETRAEDRUM MINIMUM											

Appendix B, 9 July 1971 continued.

NUC 2-1	34	344-8	3-08	NUC 2-2	37	328-5	3-39
ACTINASTRUM HANTZSCHII V. FLUVIATILE				ANAPALNA SP.		6-0	1-84
ANABAENA SP.	1-4		0-40	ANKISTRODESMUS FALCATUS V. MIRABILIS		7-4	2-26
ANKISTRODESMUS FALCATUS .. MIRABILIS	5-1		1-48	ANKISTRODESMUS GELIFACTUS		0-9	0-28
ANKISTRODESMUS GELIFACTUS	10-2		2-96	ANKISTRODESMUS SP.		0-5	0-14
ASTERIONELLA FORMOSA	0-5		0-13	ASTERIONELLA FORMOSA		0-9	0-28
BLUE-GREEN UNKNOWN FILAMENT	0-5		0-13	BLUE-GREEN UNKNOWN FILAMENT		2-8	0-85
ACTINASTRUM SP.	1-4		0-40	CILAIYUONAS SP.		0-9	0-28
CUELASTRUM SP.	0-9		0-27	CUELASTRUM SP.		1-4	0-42
CUSMARTUM SP.	3-2		0-94	CUSMARTUM SP.		1-9	0-56
CRYPTOMONAS SP.	3-7		1-08	CRYPTOMONAS SP.		0-5	0-14
CYCLUTELLA SP.	14-4		4-17	CRYPTOMONAS SP.		1-9	0-56
DINDRYUN DIVERGENS	14-8		4-31	CYCLUTELLA SP.		14-8	4-52
DINDRYUN PEDIFURME	1-9		0-54	DIATMA TENUE V. ELONGATUM		0-5	0-14
FLAGELLATES	0-5		0-13	DINDRYUN DIVERGENS		13-0	3-95
FRAGILARIA CRUTONENSIS	1-4		0-40	DINDRYUN PEDIFURME		2-8	0-85
FRANGETA DRUESCHERI	4-2		1-21	FLAGELLATES		0-9	0-28
FRANGETA OVALIS	0-5		0-13	FRAGILARIA CRUTONENSIS		45-0	13-70
GLENODINIUM SP.	21-3		6-19	FRANGETA DRUESCHERI		6-0	1-84
GLUEUCYSTIS SP.	159-2		46-16	FRANGETA SP.		0-5	0-14
KIRCHNERIELLA SP.	4-6		1-35	GLENODINIUM SP.		20-9	6-36
LAGEHEIMIA SP.	4-2		1-21	GLUEUCYSTIS SP.		119-2	36-30
MELOSIRA SP.	1-9		0-54	GREEN CULMAY, UNKNOWN		0-5	0-14
NITZSCHIA SP.	0-9		0-27	KIRCHNERIELLA SP.		2-3	0-71
UCHRYMONAS SP.	3-2		0-94	LAGEHEIMIA SP.		2-3	0-71
UEDODINIUM SP.	2-3		0-67	UCHRYMONAS SP.		0-5	0-14
UUCYSTIS SP.	41-8		12-11	UEDODINIUM SP.		3-7	1-13
PEDASTRUM TETRAS	0-5		0-13	UUCYSTIS SP.		37-1	11-30
SCENEDESMUS BIJUGA	0-5		0-13	PERIDINIUM SP.		0-5	0-14
SCENEDESMUS DIMORPHUS	0-5		0-13	SCENEDESMUS QUADRICAUDA		0-5	0-14
SCENEDESMUS QUADRICAUDA	1-4		0-40	SCENEDESMUS SP.		15-3	4-66
SCENEDESMUS SP.	23-7		6-86	SPHAERUCYSTIS SP.		1-9	0-56
STEPHANODISCUS SP.	0-5		0-13	STADASTRUM SP.		0-5	0-14
SYNEURA SP.	11-6		3-36	STEPHANODISCUS SP.		0-5	0-14
TABELLARIA FENESTRATA	1-9		0-54	SYNEURA SP.		11-1	3-39
TETRAEDROM MINIMUM				TABELLARIA FENESTRATA		1-4	0-42
				TETRAEDROM CAUDATUM		1-4	0-42
				TETRAEDROM MINIMUM		1-4	0-42

Appendix B, 9 July 1971 continued.

NDC 2-3	27	110.9	3.82	NDC 2-4	39	348.9	3.28
ANALINA SP.				ANALINA SP.		5.6	1.60
ANKISTRUESHUS FALCATUS V. MIRABILIS		3.7	3.35	ANACYSTIS SP.		0.5	0.13
ANKISTRUESHUS GELIFACTUS		4.6	4.18	ANKISTRUESHUS FALCATUS		7.4	2.13
ANKISTRUESHUS SP.		0.5	0.42	ANKISTRUESHUS GELIFACTUS		0.5	0.13
ANKISTRUESHUS SP.		0.9	0.84	ANKISTRUESHUS SP.		0.5	0.13
ASTERIONELLA FUKUOKA		0.9	0.84	ANKISTRUESHUS SP.		0.9	0.27
BLUE-GREEN UNKNOWN FILAMENT		2.3	2.09	BLUE-GREEN UNKNOWN FILAMENT		4.2	1.20
COELASTRUM SP.		0.9	0.84	CERATIUM HIKUMIJINELLA		0.5	0.13
COSMARUM SP.		1.9	1.67	CHLAMYDOMONAS SP.		0.9	0.27
CRYPTOMONAS SP.		0.9	0.84	CRUCIGENTIA APICULATA		0.9	0.27
CYCLIJELLA SP.		0.9	0.84	CRUCIGENTIA SP.		0.5	0.13
DINDJYUN DIVERGENS		6.0	5.44	CRYPTOMONAS SP.		13.0	3.72
DINDJYUN PEDIFORME		14.4	12.97	CYCLIJELLA SP.		16.7	4.79
DINDJYUN PEDIFORME		8.4	7.53	DINDJYUN DIVERGENS		22.3	6.38
FLAGELLATES		0.5	0.42	DINDJYUN PEDIFORME		7.4	2.13
FRAGILARIA CRUTJENSI		20.9	18.83	FRAGILARIA DROESCHERI		2.3	0.66
FRAGILARIA DROESCHERI		2.8	2.51	FRAGILARIA SP.		0.9	0.27
GLENIDINIUM SP.		10.2	9.21	GLENIDINIUM SP.		13.0	3.72
GLUEUCYSTIS SP.		4.6	4.18	GLUEUCYSTIS SP.		168.9	48.40
KIRCHNERIELLA SP.		0.9	0.84	KIRCHNERIELLA SP.		0.9	0.27
LAGEHEIMIA SP.		0.5	0.42	LAGEHEIMIA SP.		1.9	0.53
LECHROMONAS SP.		0.5	0.42	LECHROMONAS SP.		12.5	3.59
OEDUJUNUM SP.		0.9	0.84	OEDUJUNUM SP.		3.2	0.93
UCYCISTIS SP.		15.3	13.81	UCYCISTIS SP.		14.8	4.26
PANDURINA SP.		0.5	0.42	OSCILLATORIA SP.		0.9	0.27
PEDIASTRUM DUPLEX		0.5	0.42	PEDIASTRUM DUPLEX		0.9	0.27
SCENEDESMUS SP.		6.0	5.44	SCENEDESMUS BIJUGA		1.4	0.40
TABELLARIA FENESTRATA		0.9	0.84	SCENEDESMUS QUADRICAUDA		3.2	0.93
TETRAEDRUM MINIMUM		0.5	0.42	SCENEDESMUS SP.		13.9	3.99
				SPIAERUCYSTIS SP.		9.3	2.66
				STEPHANODISCUS SP.		3.2	0.93
				SYNEDRA SP.		0.9	0.27
				TABELLARIA FENESTRATA		4.6	1.33
				TETRAEDRUM CAUDATUM		0.9	0.27
				TETRAEDRUM MINIMUM		0.5	0.13
				WESTELLA BUTHYIDES		2.3	0.66
				WESTELLA LINEARIS		3.7	1.06



Appendix B, 9 July 1971 continued.

NOC 4-0	42	327.6	3.69	NOC 4-1	44	443.1	3.58
ACTINASTRUM HANTZSCHII V. FLUVIATILE				ACTINASTRUM HANTZSCHII V. FLUVIATILE			
ANABAENA SP.	0.9	0.20	0.42	ANABAENA SP.	1.9	0.42	
ANKISTRIDESMUS SP.	5.1	1.56	1.05	ANKISTRIDESMUS SP.	4.6	1.05	
ANKISTRIDESMUS FALCATUS V. MIRABILIS	7.9	2.41	0.21	ANKISTRIDESMUS FALCATUS V. MIRABILIS	0.9	0.21	
ANKISTRIDESMUS SP.	0.9	0.28	2.30	ANKISTRIDESMUS GELIFACTUS	10.2	2.30	
BLUE-GREEN UNKNOWN FILAMENT	4.2	1.27	0.31	ANKISTRIDESMUS SP.	1.4	0.31	
CHAMACIUM SP.	0.5	0.14	0.10	ANKISTRIDESMUS SP.	0.5	0.10	
CUSMARIUM SP.	2.3	0.71	0.21	ASTERIONELLA FUKUMUSA	0.9	0.21	
CRYPTOMUNAS SP.	12.5	3.82	1.05	BLUE-GREEN UNKNOWN FILAMENT	4.6	1.05	
CYCLITELLA SP.	2.3	0.71	0.73	CHLAMYDOMUNAS SP.	3.2	0.73	
DICTYOSPHAERIUM SP.	0.5	0.14	0.10	CLUSTERIUM ACIRCULARE	0.5	0.10	
DIMORPHUM DIVERGENS	6.0	1.84	0.63	CUSMARIUM SP.	2.8	0.63	
DIMORPHUM PEDIFURME	0.5	0.14	0.42	CRYPTOMUNAS SP.	1.9	0.42	
FLAGELLATES	1.9	0.57	1.36	CYCLITELLA SP.	6.0	1.36	
FRAGILARIA CAPUCINA	7.9	2.41	5.55	CYCLITELLA SP.	24.6	5.55	
FRAGILARIA CRUTINENSIS	10.2	3.12	3.56	DIMORPHUM DIVERGENS	15.8	3.56	
FRAGILARIA INTERMEDIA V. FALLAX	1.9	0.57	0.42	DIMORPHUM PEDIFURME	1.9	0.42	
FRANCEIA DUESCHENI	1.9	0.57	0.42	FLAGELLATES	1.9	0.42	
GLAUCOCYSTIS SP.	30.2	9.41	3.66	FRAGILARIA CAPUCINA	16.2	3.66	
GLAUCOCYSTIS SP.	117.9	35.98	2.09	FRAGILARIA CRUTINENSIS	9.3	2.09	
KIRCHNERIELLA SP.	3.2	0.99	2.20	FRANCEIA DUESCHENI	9.7	2.20	
LAGERHEIMIA SP.	1.4	0.42	7.23	GLAUCOCYSTIS SP.	32.0	7.23	
MELOSINA SP.	5.6	1.70	39.69	GLAUCOCYSTIS SP.	175.9	39.69	
MEMISMPEDIA SP.	9.3	2.83	1.47	KIRCHNERIELLA SP.	6.5	1.47	
NAVICULA SP.	0.9	0.28	0.52	LAGERHEIMIA SP.	2.3	0.52	
NEIDIUM SP.	0.5	0.14	0.84	MELOSINA SP.	3.7	0.84	
MITZSCHIA RECTA	0.5	0.14	0.10	MUGGEITIA SP.	1.9	0.10	
MITZSCHIA SP.	1.9	0.57	0.42	UCHKUMUNAS SP.	0.5	0.42	
UCHKUMUNAS SP.	0.5	0.14	0.42	UEDUGONIUM SP.	6.0	1.36	
UEDUGONIUM SP.	7.9	2.41	9.11	UUCYSTIS SP.	40.4	9.11	
UUCYSTIS SP.	24.1	7.37	0.10	USCILLATIARIA SP.	0.5	0.10	
PENTASTRUM DUPLEX	0.9	0.28	0.42	PENTASTRUM DUPLEX	1.9	0.42	
PENTASTRUM SP.	1.4	0.42	0.10	PENTASTRUM SIMPLEX	0.5	0.10	
SCENEDESMUS ARCUATUS	0.5	0.14	0.10	PENTASTRUM TETRA V. TETRADON	0.5	0.10	
SCENEDESMUS DIMORPHUS	0.5	0.14	0.10	PERIDIUM SP.	0.5	0.10	
SCENEDESMUS QUADRICAUDA	2.8	0.85	0.10	SCENEDESMUS BIJUGA	0.5	0.10	
SCENEDESMUS SP.	25.1	7.65	0.21	SCENEDESMUS QUADRICAUDA	0.5	0.21	
SCHROEDERIA SP.	0.9	0.28	4.92	SCENEDESMUS SP.	0.9	4.92	
SPIROGYRA SP.	0.5	0.14	0.10	SCHROEDERIA SP.	21.8	4.92	
SYNEURA SP.	0.5	0.14	0.10	SPHAGROCYSTIS SP.	0.5	0.10	
TABELLARIA FENESTRATA	21.3	6.52	0.21	STEPHANODISCUS SP.	5.6	1.26	
TETRAEDRON CAUDATUM	0.5	0.14	0.21	SYNEURA FILIFORMIS	0.9	0.21	
TETRAEDRON MINIMUM	1.9	0.57	0.21	TABELLARIA FENESTRATA	19.0	4.29	
				TETRAEDRON CAUDATUM	0.9	0.21	
				TETRAEDRON MINIMUM	0.5	0.10	

Appendix B, 9 July 1971 continued.

NUC 4-2	42	316.9	3.48	NUC 4-3	32	242.2	3.68
ACTINASTRUM HANTZSCHII V. FLUVIATILE				ANABAENA SP.			2.49
ANABAENA SP.	1.4	0.44		ANKISTRUDESCHUS FALCATUS V. MIRABILIS		6.0	2.49
ANKISTRUDESCHUS FALCATUS V. MIRABILIS	6.5	2.05		ANKISTRUDESCHUS GELIFACTUS		6.0	0.77
ANKISTRUDESCHUS GELIFACTUS	11.1	3.51		ANKISTRUDESCHUS SP.		1.9	0.38
ANKISTRUDESCHUS SP.	1.4	0.44		BLUE-GREEN UNKNOWN FILAMENT		3.2	1.24
ANKISTRUDESCHUS SP.	0.5	0.15		CHLAMYDOMONAS SP.		0.5	0.19
ASTERIONELLA FORMOSA	0.5	0.15		COELASTRUM SP.		0.5	0.19
BLUE-GREEN UNKNOWN FILAMENT	1.9	0.59		COELASTRUM SP.		0.5	0.19
CHLAMYDOMONAS SP.	2.8	0.88		CRUCIGENTIA APICULATA		1.4	0.57
COELASTRUM SP.	1.9	0.59		CRYPTOMONAS SP.		1.9	0.77
COELASTRUM SP.	2.8	0.88		CYCLITELLA SP.		12.5	5.17
CRUCIGENTIA SP.	0.5	0.15		DINODRYON DIVERGENS		38.5	15.90
CRYPTOMONAS SP.	2.8	0.88		DINODRYON PEDIFURME		18.6	7.66
CYCLITELLA SP.	24.1	7.61		FLAGELLATES		0.9	0.38
DINODRYON DIVERGENS	9.7	3.07		FRAGILARIA CAUTUNENSIS		0.9	0.38
DINODRYON PEDIFURME	2.3	0.73		FRANCEIA DROESCHERI		8.8	3.64
FLAGELLATES	0.5	0.15		FRANCEIA UVALIS		0.5	0.19
FRANCEIA DROESCHERI	3.2	1.02		FRANCEIA SP.		0.9	0.38
FRANCEIA SP.	16.7	5.27		GLENODINIUM SP.		7.0	2.87
GLENODINIUM SP.	118.3	37.34		GLUEICYSTIS SP.		67.3	27.78
GLUEICYSTIS SP.	0.5	0.15		KIRCHNERIELLA SP.		8.4	3.45
GREEN COLONY, UNKNOWN	4.2	1.32		LAGEHMETIA SP.		1.9	0.77
KIRCHNERIELLA SP.	3.2	1.02		NEPHROCYTIUM SP.		0.5	0.19
LAGEHMETIA SP.	1.9	0.59		OCCHRODINIUM SP.		2.8	1.15
MELUSINA SP.	0.5	0.15		ODONOTRICHUM SP.		1.9	0.77
NITZSCHIA SP.	2.3	0.73		ODONOTRICHUM SP.		27.8	11.49
OCCHRODINIUM SP.	4.2	1.32		SCENEDESMUS SP.		6.5	2.68
ODONOTRICHUM SP.	48.7	15.37		SPHAEROCYSTIS SP.		1.9	0.77
PEDIASTRUM BORYANUM	0.5	0.15		TABELLARIA FENESTRATA		2.8	1.15
PEDIASTRUM DUPLEX	1.9	0.59		TETRAEDRUM CAUDATUM		0.5	0.19
PEDIASTRUM GLANDULIFERUM	0.5	0.15		TETRAEDRUM MINIMUM		2.8	1.15
SCENEDESMUS BIJUGA	0.5	0.15		WESTELLA ROTAVUIDES		4.6	1.92
SCENEDESMUS QUADRICAUDA	0.9	0.29					
SCENEDESMUS SP.	21.3	6.74		NUC 4-4	17	72.8	3.05
SPHAEROCYSTIS SP.	3.7	1.17		ACTINASTRUM HANTZSCHII V. FLUVIATILE			1.27
STEPHANODISCUS SP.	0.5	0.15		ANABAENA SP.		0.9	5.73
SYNEURA FILIFORMIS	0.5	0.15		ANKISTRUDESCHUS GELIFACTUS		2.3	3.18
SYNEURA SP.	8.4	2.64		ANKISTRUDESCHUS SP.		0.5	0.64
TABELLARIA FENESTRATA	0.5	0.15		COELASTRUM SP.		0.5	0.64
TETRAEDRUM CAUDATUM	0.5	0.15		CRUCIGENTIA TETRAPEDIA		3.2	4.46
TETRAEDRUM MINIMUM	1.9	0.59		CYCLITELLA SP.		19.5	26.75
				DINODRYON DIVERGENS		2.8	3.82
				DINODRYON PEDIFURME		1.4	1.91
				GLENODINIUM SP.		20.9	28.66
				GLUEICYSTIS SP.		1.4	1.91
				KIRCHNERIELLA SP.		0.5	0.64
				LAGEHMETIA SP.		7.4	10.19
				OCCHRODINIUM SP.		4.6	6.37
				ODONOTRICHUM SP.		0.5	0.64
				SCENEDESMUS SP.		1.9	2.55
				TETRAEDRUM MINIMUM			

Appendix B, 9 July 1971 continued.

NDC 7-1	53	3611.3	1.62	NDC 7-2	44	1537.3	1.71
ACTINASTRUM HAMTZSCHII V. FLUVIATILE		297.9	8.25	ACTINASTRUM HAMTZSCHII V. FLUVIATILE		63.1	4.10
ANABENA SP.		2.8	0.08	ANABENA SP.		5.1	0.33
ANACYSTIS SP.		0.5	0.01	ANKISTRODESMUS FALCATUS V. MIRABILIS		10.2	0.66
ANKISTRODESMUS FALCATUS V. MIRABILIS		14.8	0.41	ANKISTRODESMUS FALCATUS		1.9	0.12
ANKISTRODESMUS FALCATUS		0.5	0.01	ANKISTRODESMUS GELIFACTUS		2.8	0.18
ANKISTRODESMUS GELIFACTUS		0.9	0.03	BLUE-GREEN UNKNOWN FILAMENT		6.0	0.39
ANKISTRODESMUS SP.		3.7	0.10	CHLAMYDOMONAS SP.		0.5	0.03
BLUE-GREEN UNKNOWN FILAMENT		12.5	0.35	CLUSTERIUM SP.		0.9	0.06
CHLAMYDOMONAS SP.		0.5	0.01	COELASTRUM SP.		1.9	0.12
CHLAMYDOMONAS SP.		1.4	0.04	COSMARION SP.		2.3	0.15
CLUSTERIUM SP.		0.5	0.01	CRUCIGENIA APICULATA		2.3	0.15
COELASTRUM SP.		2.8	0.08	CRUCIGENIA SP.		0.5	0.03
COSMARION SP.		0.9	0.03	CRYPTOMONAS SP.		23.7	1.54
CRUCIGENIA APICULATA		3.7	0.10	CYCLITELLA SP.		38.5	2.51
CRUCIGENIA SP.		0.9	0.03	CYCLITELLA SP.		18.6	1.21
CRYPTOMONAS SP.		26.4	0.73	DINODRYUM DIVERGENS		4.6	0.30
CYCLITELLA SP.		45.0	1.25	DINODRYUM PEDIFORME		0.9	0.06
DINODRYUM DIVERGENS		40.8	1.13	FLAGELLATES		0.9	0.06
DINODRYUM PEDIFORME		10.2	0.28	FRAGILARIA CRUTONENSIS		5.1	0.33
FRAGILARIA CRUTONENSIS		2.8	0.08	FRAGILARIA DUESCHERI		1.9	0.12
FRAGILARIA DUESCHERI		7.0	0.19	FRAGILIA OVALIS		0.9	0.06
FRAGILIA OVALIS		0.5	0.01	GLENJINIA SP.		6.0	0.39
FRAGILIA SP.		1.4	0.04	GLENJINIA SP.		1194.8	77.72
GLENJINIA SP.		9.3	0.26	GULEKINIA RADIATA		0.5	0.03
GULEKINIA SP.		0.5	0.01	KIRCHWITTELLA SP.		2.8	0.18
GREEN COLONY, UNKNOWN		2793.7	77.36	LAGEKELMIA SP.		0.9	0.06
KIRCHWITTELLA SP.		4.6	0.13	LAGEKELMIA SP.		8.8	0.57
LAGEKELMIA SP.		5.6	0.15	MAVITULA SP.		0.5	0.03
MELUSINA SP.		53.4	1.48	NITZSCHIA ACICULARIS		0.5	0.03
MERTSNIPEUTIA SP.		32.0	0.89	NITZSCHIA SP.		5.1	0.33
MICHAELTINIUM SP.		0.9	0.03	ODONTOGYNIA SP.		2.4	0.16
MITZSCHIA SP.		0.5	0.01	ODONTOGYNIA SP.		35.7	2.32
ODONTOGYNIA SP.		7.4	0.21	PEDINASTRUM DUPLEX		2.8	0.18
ODONTOGYNIA SP.		22.7	0.63	PEDINASTRUM DUPLEX		0.5	0.03
OSCILLATORIA SP.		81.2	2.25	PEDINASTRUM STAPLEX		1.9	0.12
OSCILLATORIA SP.		1.4	0.04	SCENEDESMUS ALJUGA		5.6	0.36
PEDINASTRUM DUPLEX		2.8	0.08	SCENEDESMUS DITHIRPHUS		7.4	0.48
PEDINASTRUM DUPLEX		0.9	0.03	SCENEDESMUS QUADRICAUDA		24.1	1.57
PEDINASTRUM STAPLEX		1.9	0.05	SCENEDESMUS SP.		22.3	1.45
SCENEDESMUS ALJUGA		0.9	0.03	SPHAEROCYSTIS SP.		2.3	0.15
SCENEDESMUS DITHIRPHUS		13.9	0.39	STAPLESTRUM SP.		18.1	1.18
SCENEDESMUS QUADRICAUDA		15.8	0.44	TETRAEDRUM CAUDATUM		1.4	0.09
SCENEDESMUS SP.		0.9	0.03	TETRAEDRUM MINIMUM		0.5	0.03
SPHAEROCYSTIS SP.		35.3	0.98	TETRAEDRUM TUMIDULUM		0.5	0.03
STAPLESTRUM SP.		0.5	0.01				
TETRAEDRUM CAUDATUM		4.0	0.17				
TETRAEDRUM MINIMUM		1.9	0.05				
TETRAEDRUM TUMIDULUM		1.4	0.04				
		31.1	0.86				
		3.7	0.10				
		1.4	0.04				
		0.9	0.03				

MUC 7-3	46	2436.1	1.67	NUC 7-4	37	213.4	3.92
ACTINASTRUM HANTZSCHII		0.5	0.02				4.78
ACTINASTRUM HANTZSCHII V. FLUVIATILE	122.0	5.01	5.01				1.74
ANABAENA SP.	5.1	0.21	0.21				0.43
ANKISTRUDESCHUS FALCATUS V. MIRABILIS	7.9	0.32	0.04			10.2	3.7
ANKISTRUDESCHUS SP.	0.9	0.04	0.04			0.9	0.43
BLUE-GREEN UNKNOWN FILAMENT	6.0	0.25	0.25			0.9	0.22
CHARACTUM SP.	2.8	0.11	0.11			0.5	0.43
CHLAMYDOMONAS SP.	0.5	0.02	0.02			0.5	0.22
CLOSTERIUM SP.	1.4	0.06	0.06			0.5	0.22
CLOSTERIUM SP.	2.8	0.11	0.11			0.5	0.22
COSMARIUM SP.	2.3	0.10	0.10			0.9	0.43
CRUCIGENTIA SP.	0.5	0.02	0.02			0.5	0.43
CRYPTOMONAS SP.	32.9	1.35	1.35			3.7	1.74
CYCLITELLA SP.	28.8	1.18	1.18			25.1	11.74
DINOMYXON DIVERGENS	26.9	1.10	1.10			22.3	10.43
DINOMYXON PEDIFORME	4.6	0.19	0.19			9.3	4.35
FLAGELLATES	0.5	0.02	0.02			0.9	0.43
FRAGILARIA CRUTONENSIS	5.1	0.21	0.21			7.0	3.26
FRANCEIA DROESCHERI	7.4	0.30	0.30			6.0	2.83
GLENODINIUM SP.	22.3	0.91	0.91			15.3	7.17
GLUEUCYSTIS SP.	1894.6	77.77	77.77			52.0	24.35
KIRCHNERIELLA SP.	5.6	0.23	0.23			0.5	0.22
LAGERHEIMIA SP.	5.6	0.23	0.23			1.4	0.65
MELUSTIA SP.	53.4	2.19	2.19			2.3	1.09
NAVICULA SP.	0.5	0.02	0.02			0.9	0.43
NITZSCHIA SP.	0.9	0.04	0.04			1.9	0.87
UCHROMONAS SP.	7.0	0.29	0.29			4.2	1.96
ODONDIUM SP.	11.6	0.48	0.48			16.7	7.83
ODONDIUM SP.	60.8	2.50	2.50			0.5	0.22
OSCILLATORIA SP.	0.5	0.02	0.02			0.5	0.22
PEDIASTRUM BRYANUM	0.5	0.02	0.02			0.5	0.22
PEDIASTRUM DUPLEX	2.3	0.10	0.10			1.9	0.87
PEDIASTRUM SIMPLEX	0.5	0.02	0.02			0.9	0.43
SCENEDESCHUS BIMORPHUS	2.8	0.11	0.11			11.1	5.22
SCENEDESCHUS QUADRICAUDA	15.3	0.63	0.63			0.9	0.43
SCENEDESCHUS SP.	52.4	2.15	2.15			0.5	0.22
SCENEDESCHUS SP.	1.4	0.06	0.06			0.5	0.22
SCHROEDERIA SP.	16.7	0.69	0.69			1.9	0.87
SPHAEROCYSTIS SP.	0.5	0.02	0.02			0.5	0.22
STAUASTRUM SP.	2.8	0.11	0.11			3.2	1.52
STEPHANODISCUS SP.	0.5	0.02	0.02			0.5	0.22
TABELLARIA FENESTRATA	11.6	0.48	0.48			3.2	1.52
TETRAEDRON CAUDATUM	1.9	0.08	0.08				
TETRAEDRON MINIMUM	3.2	0.13	0.13				
TETRAEDRON SP.	1.4	0.06	0.06				

Appendix B, 9 July 1971 continued.

NDC 7-5	34	319.2	3.16	SUC .25-1	30	219.0	3.99
ACTINASTRUM HANTZSCHII V. FLUVIATILE				ANABAENA SP.			
ANABAENA SP.	7.0		2.18	ANKISTRUDESCHUS FALCATUS V. MIRABILIS		10.2	4.66
ANKISTRUDESCHUS FALCATUS V. MIRABILIS	1.9		0.58	ANKISTRUDESCHUS GELIFACTUS		4.2	1.91
ANKISTRUDESCHUS GELIFACTUS	5.6		1.74	BLUF-GREEN UNKNOWN FILAMENT		0.9	0.42
ANKISTRUDESCHUS SP.	1.9		0.58	COELASTRUM SP.		3.7	1.69
ANKISTRUDESCHUS SP.	0.5		0.15	COELASTRUM SP.		0.9	0.42
BLUF-GREEN UNKNOWN FILAMENT	4.2		1.91	CRUCIOLINIA APIOLATA		3.2	1.48
COELASTRUM SP.	0.5		0.15	CRUCIOLINIA SP.		2.3	1.06
CRUCIOLINIA SP.	4.8		0.87	CRYPTOCHINAS SP.		0.5	0.21
CRYPTOCHINAS SP.	8.8		2.76	CYCLITELLA SP.		7.4	3.39
CYCLITELLA SP.	62.2		19.48	CYCLITELLA SP.		16.2	7.42
DIMORPHUM DIVERGENS	9.3		2.91	DIMORPHUM DIVERGENS		13.9	6.36
DIMORPHUM PEDIFORME	1.4		0.44	DIMORPHUM PEDIFORME		2.8	1.27
FLAGELLATES	5.6		1.74	FLAGELLATES		1.4	0.64
FRANCEIA DRUESCHERI	2.3		0.73	FRAGILARIA CAPULINA		1.4	0.64
FRANCEIA SP.	7.0		2.18	FRAGILARIA DRUESCHERI		4.2	1.91
GLUMINUM SP.	133.6		41.86	FRAGILARIA JAVALLIS		0.5	0.21
GLUEICYSTIS SP.	0.9		0.29	GLUMINUM SP.		17.6	8.05
GULEVKINIA RADIATA	3.2		1.02	GLUEICYSTIS SP.		51.5	23.52
KIRCHNERIELLA SP.	1.4		0.44	GULEVKINIA RADIATA		0.5	0.21
KIRCHNERIELLA SP.	3.7		1.31	KIRCHNERIELLA SP.		1.9	0.85
LAGERHEIMIA SP.	4.2		1.74	LAGERHEIMIA SP.		1.4	0.64
LAGERHEIMIA SP.	25.1		7.85	LAGERHEIMIA SP.		0.9	0.42
LEUCYSTIS SP.	0.5		0.15	LAGERHEIMIA SP.		2.8	1.27
PEDIASTRUM RUJANUM	0.5		0.15	LAGERHEIMIA SP.		4.2	1.91
PEDIASTRUM DUPLEX	0.5		0.15	LAGERHEIMIA SP.		32.5	14.83
SCENEDESCHUS RIJUGA	0.9		0.29	LAGERHEIMIA SP.		0.5	0.21
SCENEDESCHUS QUADRICAUDA	0.9		0.29	LAGERHEIMIA SP.		1.4	0.64
SCENEDESCHUS SP.	7.9		2.47	LAGERHEIMIA SP.		0.5	0.21
SPHAEROCYSTIS SP.	5.6		1.74	LAGERHEIMIA SP.		0.5	0.21
SYNEDRA SP.	0.9		0.29	LAGERHEIMIA SP.		11.1	5.08
TETRAEDRUM CAUDATUM	1.4		0.44	LAGERHEIMIA SP.		0.5	0.21
TETRAEDRUM MINIMUM	0.9		0.29	LAGERHEIMIA SP.		0.9	0.42
TETRAEDRUM SP.	0.5		0.15	LAGERHEIMIA SP.		1.4	0.64
TREUBARIA SETIGERUM	0.5		0.15	LAGERHEIMIA SP.		0.5	0.21
WESTELLA LINEARIS	6.0		1.89	LAGERHEIMIA SP.		0.5	0.21

Appendix B, 9 July 1971 continued.

SDC 5-2	27	99.3	3.61
ANABALNA SP.		2.8	2.80
ANKISTRODESCHUS FALCATUS V. MIRABILIS		1.4	1.40
ANKISTRODESCHUS FALCATUS		0.5	0.47
ANKISTRODESCHUS GELIFACTUS		0.5	0.47
BLUE-GREEN UNKNOWN FILAMENT		0.5	0.47
CRYPTOMUNAS SP.		0.5	0.47
CYCLIJELLA SP.		7.0	7.01
DINOMYXON DIVERGENS		1.4	1.40
DINOMYXON PEUTIFUMME		0.9	0.93
FLAGELLATES		2.3	2.34
FRAGILARIA CRUTCHENSIS		0.9	0.93
FRANCEIA DRUESCHERI		1.9	1.87
GLENIDIINIUM SP.		15.3	15.42
GLOEJCYSTIS SP.		19.5	19.63
KLEINERIELLA SP.		0.5	0.47
LAGERHEIMIA SP.		0.5	0.47
MELUSTIA SP.		1.9	1.87
UCHROMUNAS SP.		0.9	0.93
UEDJUNION SP.		1.9	1.87
JUCYSTIS SP.		8.4	8.41
PELIASSTRUM DUPLEX		0.5	0.47
PELITINIUM SP.		0.5	0.47
SCENEDESCHUS BIJUGA		0.5	0.47
SCENEDESCHUS SP.		12.5	12.62
STEPHANODISCUS SP.		0.5	0.47
TABELLARIA FENESTRATA		14.8	14.95
TETRAEDRUM MINIMUM		0.9	0.93
SDC 5-1	27	306.1	3.86
ANABALNA SP.		3.7	1.21
ANKISTRODESCHUS FALCATUS V. MIRABILIS		3.7	1.21
BLUE-GREEN UNKNOWN FILAMENT		5.6	1.82
CHLAMYDOMUNAS SP.		1.9	0.61
CULLASTRUM SP.		1.9	0.61
COSMARION SP.		3.7	1.21
CRYPTOMUNAS SP.		14.8	4.85
CYCLIJELLA SP.		9.3	3.03
DIATOMA SP.		1.9	0.61
DINOMYXON DIVERGENS		18.5	6.06
FRAGILARIA SP.		3.7	1.21
FRANCEIA DRUESCHERI		9.3	3.03
FRANCEIA OVALIS		1.9	0.61
GLENIDIINIUM SP.		27.8	9.09
GLOEJCYSTIS SP.		68.6	22.42
LAGERHEIMIA SP.		3.7	1.21
NITZSCHIA ACICULARIS		1.9	0.61
NITZSCHIA SP.		1.9	0.61
UCHROMUNAS SP.		3.7	1.21
UEDJUNION SP.		7.4	2.42
ODCYSTIS SP.		35.2	11.52
SCENEDESCHUS SP.		22.3	7.27
SPHAEROCYSTIS SP.		14.8	4.85
STEPHANODISCUS SP.		1.9	0.61
SYNEDRA SP.		1.9	0.61
TABELLARIA FENESTRATA		33.4	10.91
SDC 5-2	35	277.0	3.88
ANABALNA SP.		4.2	1.51
ANKISTRODESCHUS FALCATUS V. MIRABILIS		6.0	2.18
ANKISTRODESCHUS GELIFACTUS		2.3	0.84
BLUE-GREEN UNKNOWN FILAMENT		1.9	0.67
CLUSTRIUM SP.		0.9	0.34
CUSTARDIA SP.		3.7	1.34
CYNOCYTHIA SP.		0.5	0.17
CRYPTOMUNAS SP.		6.5	2.35
CYCLIJELLA SP.		23.7	8.54
DINOMYXON DIVERGENS		10.2	3.69
DINOMYXON PEUTIFUMME		0.9	0.34
FRAGILARIA CRUTCHENSIS		5.1	1.84
FRANCEIA DRUESCHERI		0.5	0.17
FRANCEIA SP.		26.0	9.38
GLENIDIINIUM SP.		64.5	23.28
GLOEJCYSTIS SP.		2.8	1.01
KLEINERIELLA SP.		1.9	0.67
LAGERHEIMIA SP.		31.1	11.22
MEGALOPEDIA SP.		2.8	1.01
UCHROMUNAS SP.		2.3	0.84
UEDJUNION SP.		34.3	12.40
JUCYSTIS SP.		0.5	0.17
PELITINIUM SP.		2.8	1.01
SCENEDESCHUS BIJUGA		1.4	0.50
SCENEDESCHUS QUADRICAUDA		0.5	0.17
SCENEDESCHUS SP.		16.2	5.86
SPHAEROCYSTIS SP.		1.9	0.67
STEPHANODISCUS SP.		1.4	0.50
SYNEDRA SP.		0.5	0.17
TABELLARIA FENESTRATA		9.3	3.35
TETRAEDRUM CAUDATUM		0.5	0.17
TETRAEDRUM MINIMUM		3.7	1.34
WESTELLA HUTRYIIDE		3.7	1.34
WESTELLA LINEARIS		1.9	0.67

Appendix B, 9 July 1971 continued.

SDC .5-3	30	133.6	3.87
ANABAENA SP.		6.0	4.51
ANACYSTIS SP.		0.5	0.35
ANKISTRUDISMUS FALCATUS V. MIRABILIS		1.4	1.04
BLUE-GREEN UNKNOWN FILAMENT		1.4	1.04
GLUSTERTIPSIS LONGISSIMA		0.5	0.35
GUELASTRUM SP.		0.5	0.35
COSMARUM SP.		1.9	1.39
CRYPTOMUNAS SP.		6.0	4.51
CYCLUTELLA SP.		4.6	3.47
DIMYRYON DIVERGENS		10.2	7.64
DIMYRYON PEDIFURME		7.0	5.21
FLAGELLATES		1.4	1.04
FRAGILARIA CRUTONENSIS		6.5	4.86
FRANGELA DRUESCHERI		1.9	1.39
FRANGELA SP.		1.4	1.04
GLENIDINIUM SP.		17.2	12.05
GLUEJCYSTIS SP.		26.9	20.14
GULENKINIA RADIATA		0.5	0.35
LAGERHEIMIA SP.		0.5	0.35
LAGERHEIMIA SP.		0.9	0.69
MELOSIRA SP.		2.3	1.74
ODRUMUNAS SP.		0.5	0.35
ODUCYSTIS SP.		21.3	15.97
PERIODINIUM SP.		0.5	0.35
SCENEDESMUS SP.		2.8	2.08
STEPHANODISCUS SP.		0.5	0.35
SYNEURA SP.		0.9	0.69
TABELLARIA FENESTRATA		4.6	3.47
TETRAEDRUM CAUDATUM		0.9	0.69
TETRAEDRUM MINIMUM		2.3	1.74
SDC 1-1	20	104.9	3.75
ANABAENA SP.		0.5	0.44
ANKISTRUDISMUS FALCATUS V. MIRABILIS		1.4	1.33
ANKISTRUDISMUS GELIFACTUS		0.5	0.44
BLUE-GREEN UNKNOWN FILAMENT		2.3	2.21
CHLAMYDOMUNAS SP.		0.5	0.44
GUELASTRUM SP.		0.5	0.44
COSMARUM SP.		2.3	2.21
CRUCIGENTIA SP.		0.5	0.44
CRYPTOMUNAS SP.		5.1	4.87
CYCLUTELLA SP.		11.6	11.06
DIMYRYON DIVERGENS		7.9	7.52
FLAGELLATES		1.9	1.77
FRAGILARIA CRUTONENSIS		3.2	3.10
FRANGELA DRUESCHERI		1.4	1.33
GLENIDINIUM SP.		9.3	8.85
GLUEJCYSTIS SP.		25.5	24.34
KIRCHNERIELLA SP.		0.9	0.88
LAGERHEIMIA SP.		0.5	0.44
MELOSIRA SP.		0.5	0.44
ODRUMUNAS SP.		0.9	0.88
ODUCYSTIS SP.		1.9	1.77
ODUCYSTIS SUBMARINA		13.5	12.83
SCENEDESMUS SP.		0.5	0.44
STAUASTRUM SP.		5.1	4.87
STEPHANODISCUS SP.		0.5	0.44
TABELLARIA FENESTRATA		0.9	0.88
SDC 1-0	39	522.8	3.88
AMPHIRA SP.		0.9	0.18
ANABAENA SP.		4.6	0.89
ANKISTRUDISMUS FALCATUS V. MIRABILIS		7.4	1.42
ANKISTRUDISMUS SP.		2.8	0.53
BLUE-GREEN UNKNOWN FILAMENT		4.6	0.89
CHLAMYDOMUNAS SP.		0.9	0.18
GUELASTRUM SP.		0.9	0.18
COSMARUM SP.		4.6	0.89
CRUCIGENTIA APICULATA		2.8	0.53
CRUCIGENTIA SP.		11.1	2.13
CRYPTOMUNAS SP.		14.8	2.84
CYCLUTELLA SP.		34.3	6.56
DIMYRYON DIVERGENS		13.0	2.48
DIMYRYON PEDIFURME		2.8	0.53
FLAGELLATES		5.6	1.06
FRAGILARIA CRUTONENSIS		30.6	5.85
FRANGELA DRUESCHERI		7.4	1.42
GLENIDINIUM SP.		93.6	17.91
GLUEJCYSTIS SP.		93.6	17.91
KIRCHNERIELLA SP.		3.7	0.71
MELOSIRA SP.		14.8	2.84
NAVICULA AURORA		0.9	0.18
NAVICULA SP.		0.9	0.18
NITZSCHIA SP.		0.9	0.18
ODUCYSTIS SP.		9.3	1.77
OSCILLATORIA SP.		25.0	4.79
PERIODINIUM SP.		0.9	0.18
SCENEDESMUS UIJUGA		3.7	0.71
SCENEDESMUS QUADRICAUDA.		1.9	0.35
SCENEDESMUS SP.		1.9	0.35
SPHAEROCYSTIS SP.		29.7	5.67
SPIRIGYRA SP.		3.7	0.71
STEPHANODISCUS SP.		0.9	0.18
SYNEURA SP.		0.9	0.18
SYNEURA ULNA		0.9	0.18
TABELLARIA FENESTRATA		0.9	0.18
TETRAEDRUM MINIMUM		82.5	15.78
TETRAEDRUM BUTYROIDES		0.9	0.18
WESTELLA BUTYROIDES		1.9	0.35

SOC 1-2	38	238.5	3.88	5.25
ANABAENA SP.	12.5		5.25	
ANKISTRUDESMUS FALCATUS V. MIRABILIS	6.5		2.72	
ANKISTRUDESMUS SP.	0.5		0.19	
BLUE-GREEN UNKNOWN FILAMENT	2.3		0.97	
COELASTRUM SP.	0.5		0.19	
CUSMARUM SP.	2.8		1.17	
CRUCIGENTIA SP.	2.8		1.17	
CRYPTONUMAS SP.	10.2		4.28	
CYCLITELLA SP.	16.2		6.81	
DINOMYXON DIVERGENS	12.5		5.25	
DINOMYXON PEDIFORNE	2.3		0.97	
FRAGILARIA SP.	1.9		0.78	
FRANCEIA DUESCHERI	7.0		2.92	
FRANCEIA UVALIS	0.5		0.19	
GLENODINIUM SP.	10.1		7.59	
GLUECYSTIS SP.	59.9		25.10	
KING-ANKITELLA SP.	0.5		0.19	
LAGERHEIMIA SP.	2.8		1.17	
NICHOLYSTIS SP.	0.5		0.19	
NITZSCHIA SP.	0.9		0.39	
UCHROMYXAS SP.	0.5		0.19	
ULUODINIUM SP.	7.4		3.11	
UOCYSTIS SP.	35.7		14.93	
UOCYSTIS SUBMARINA	0.9		0.39	
USCILLATIUM SP.	0.5		0.19	
PEDASTAUM DUPLER	0.9		0.39	
PEDASTAUM SIMPLEX	0.5		0.19	
PERLINIUM SP.	1.9		0.78	
SCENODIUMS ALIUGA	0.5		0.19	
SCENODIUMS UTMARPHUS	0.5		0.19	
SCENODIUMS JUAKILCAUDA	11.1		4.67	
SCENODIUMS SP.	0.5		0.19	
STRAKASTRUA SP.	3.2		1.26	
STEPHANODISCUS SP.	0.5		0.19	
SYNEIDIA SP.	11.1		4.67	
TABELLARIA FENESTRATA	0.9		0.39	
TETRAEDRUM CAUDATUM				
TETRAEDRUM MINIMUM				
SOC 1-3	19	79.8	3.69	
ANABAENA SP.	6.0		7.50	
ANKISTRUDESMUS FALCATUS V. MIRABILIS	1.9		4.23	
ANKISTRUDESMUS GELIFACTUS	0.9		1.16	
BLUE-GREEN UNKNOWN FILAMENT	0.9		1.16	
CRYPTONUMAS SP.	0.9		1.16	
CYCLITELLA SP.	0.5		0.58	
DINOMYXON DIVERGENS	13.5		16.86	
DINOMYXON PEDIFORNE	7.0		8.72	
FLAGELLATES	1.9		2.93	
FRAGILARIA SP.	1.9		1.74	
FRANCEIA DUESCHERI	1.9		2.93	
FRANCEIA UVALIS	0.5		0.58	
GLENODINIUM SP.	7.4		9.30	
GLUECYSTIS SP.	15.3		19.19	
UCHROMYXAS SP.	1.9		2.93	
UOCYSTIS SP.	13.9		17.64	
SCENODIUMS SP.	0.9		1.16	
SCENODIUMS SP.	0.9		1.16	
TETRAEDRUM MINIMUM	2.3		2.91	
SOC 2-0	39	706.7		
AMPHURA SP.		1.9		
ANABAENA SP.		7.6		
ANKISTRUDESMUS FALCATUS V. MIRABILIS		16.7		
BLUE-GREEN UNKNOWN FILAMENT		9.3		
CHILAYUDOMUS SP.		1.9		
CLOSTERIUM ACINCULARE		9.3		
CUSMARUM SP.		1.18		
CRUCIGENTIA SP.		10.40		
CRYPTONUMAS SP.		2.66		
CYCLITELLA SP.		26.3		
DINOMYXON DIVERGENS		16.2		
DINOMYXON PEDIFORNE		11.1		
FLAGELLATES		3.7		
FRAGILARIA CALIFORNENSIS		116.9		
FRANCEIA DUESCHERI		5.0		
FRANCEIA UVALIS		1.9		
GLENODINIUM SP.		107.6		
GLUECYSTIS SP.		50.1		
GULF INTRIA RADATA		1.9		
HELODITHA SP.		16.7		
HELODITHA SP.		26.7		
NICHOLYSTIS SP.		33.4		
NAVICULA SP.		7.6		
NITZSCHIA ACINCULARIS		1.9		
NITZSCHIA SP.		1.9		
NITZSCHIA SP.		2.6		
NITZSCHIA SP.		0.71		
NUCULITIS SP.		5.0		
NUCULITIS SP.		35.2		
USCILLATIUM SP.		1.9		
USCILLATIUM SP.		1.9		
SCENODIUMS ALIUGA		1.9		
SCENODIUMS UTMARPHUS		7.6		
SCENODIUMS SP.		29.7		
SPERMATOPHYTES		2.6		
SPERMATOPHYTES		5.6		
STEPHANODISCUS SP.		5.6		
SYNEIDIA DELICATISSIMA		3.7		
SYNEIDIA SP.		3.7		
TABELLARIA FENESTRATA		96.9		
WESTELLA ROTAVIOLIS		3.7		



## b7C 2-1

109

Appendix B, 9 July 1971 continued.

SUC 2-3	36	204.0	3.70	SUC 2-4	30	85.4	3.59
ANABAENA SP.		10.6	6.54	ANABAENA SP.		4.4	5.43
ANKISTRUESMUS FALCATUS V. MINABILIS		6.5	2.29	ANKISTRUESMUS FALCATUS V. MINABILIS		0.5	0.54
ANKISTRUESMUS GELIFACTUS		0.5	0.16	ANKISTRUESMUS FALCATUS		0.5	0.54
ANKISTRUESMUS SP.		0.5	0.16	ANKISTRUESMUS GELIFACTUS		1.9	2.17
ALUF-UNKEEN UNKNOWN FILAMENT		2.8	0.98	ANKISTRUESMUS SP.		0.5	0.54
CLOSTEROPS LONGISSIMA		0.5	0.16	BLUE-UNKEEN UNKNOWN FILAMENT		0.5	0.54
CLOSTEROPS SP.		0.5	0.16	COSMARTUM SP.		0.9	1.09
COSMARTUM SP.		3.2	1.14	CRUCIGERIA SP.		3.7	4.35
CRUCIGERIA SP.		0.5	0.16	CRYPTOMYXAS SP.		4.4	4.49
CRYPTOMYXAS SP.		7.4	2.61	CYCLITELLA SP.		0.9	1.09
CYCLITELLA SP.		49.2	10.29	DIMORPHUM DIVERGENS		17.2	20.11
DIMORPHUM DIVERGENS		4.6	1.63	DIMORPHUM PENIFRAME		1.4	1.63
DIMORPHUM SP.		12.1	4.25	FRAGILARIA CRUTUMENSIS		1.4	1.63
FRAGILARIA CRUTUMENSIS		0.5	0.16	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		1.4	0.49	FRAGILARIA CRUTUMENSIS		0.9	1.09
FRAGILARIA CRUTUMENSIS		0.9	0.33	FRAGILARIA CRUTUMENSIS		0.9	1.09
FRAGILARIA CRUTUMENSIS		5.6	1.96	FRAGILARIA CRUTUMENSIS		7.0	8.15
FRAGILARIA CRUTUMENSIS		0.5	0.16	FRAGILARIA CRUTUMENSIS		9.7	11.41
FRAGILARIA CRUTUMENSIS		22.3	7.84	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		84.0	29.58	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		5.6	1.96	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		2.3	0.82	FRAGILARIA CRUTUMENSIS		7.0	8.15
FRAGILARIA CRUTUMENSIS		0.9	0.33	FRAGILARIA CRUTUMENSIS		9.7	11.41
FRAGILARIA CRUTUMENSIS		5.6	1.96	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		34.8	12.25	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		0.5	0.16	FRAGILARIA CRUTUMENSIS		7.0	8.15
FRAGILARIA CRUTUMENSIS		1.9	0.65	FRAGILARIA CRUTUMENSIS		2.8	3.26
FRAGILARIA CRUTUMENSIS		1.4	0.49	FRAGILARIA CRUTUMENSIS		7.4	8.70
FRAGILARIA CRUTUMENSIS		0.5	0.16	FRAGILARIA CRUTUMENSIS		0.9	1.09
FRAGILARIA CRUTUMENSIS		13.9	4.90	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		0.5	0.16	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		4.2	1.47	FRAGILARIA CRUTUMENSIS		0.9	1.09
FRAGILARIA CRUTUMENSIS		7.9	2.74	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		0.5	0.16	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		1.4	0.49	FRAGILARIA CRUTUMENSIS		0.5	0.54
FRAGILARIA CRUTUMENSIS		0.5	0.16	FRAGILARIA CRUTUMENSIS		5.6	6.52

## 111

[illegible]

SDC 4-2	32	171-7	4-07	SDC 4-3	31	256-6	3-75
ANABAENA SP.				ANABAENA SP.			
ANKISTRIDESMUS FALCATUS V. MIRABILIS		3.7	2.16	ANKISTRIDESMUS FALCATUS V. MIRABILIS		19.0	7.41
ANKISTRIDESMUS GELIFACTUS		7.0	4.05	BLUE-GREEN UNKNOWN FILAMENT		2.0	1.08
BLUE-GREEN UNKNOWN FILAMENT		0.5	0.27	CYCLASTRUM SP.		1.4	0.54
CHAXACTUM SP.		2.3	1.55	CYCLASTRUM SP.		0.9	0.36
CYCLASTRUM SP.		0.5	0.27	CYCLASTRUM SP.		1.9	0.72
CYCLASTRUM SP.		0.9	0.54	CYCLASTRUM SP.		9.3	3.62
CYCLASTRUM SP.		5.6	3.24	CYCLASTRUM SP.		19.0	7.41
CYCLASTRUM SP.		8.4	4.86	CYCLASTRUM SP.		15.8	6.15
CYCLASTRUM SP.		15.3	8.92	CYCLASTRUM SP.		0.9	0.36
CYCLASTRUM SP.		11.1	6.49	CYCLASTRUM SP.		1.9	0.72
CYCLASTRUM SP.		1.4	0.81	CYCLASTRUM SP.		0.9	0.36
CYCLASTRUM SP.		3.7	2.16	CYCLASTRUM SP.		0.9	0.36
CYCLASTRUM SP.		4.2	2.43	CYCLASTRUM SP.		4.2	1.63
CYCLASTRUM SP.		4.2	2.43	CYCLASTRUM SP.		23.2	9.04
CYCLASTRUM SP.		0.9	0.54	CYCLASTRUM SP.		63.6	24.77
CYCLASTRUM SP.		0.5	0.27	CYCLASTRUM SP.		0.9	0.36
CYCLASTRUM SP.		25.5	14.86	CYCLASTRUM SP.		2.8	1.08
CYCLASTRUM SP.		26.0	15.14	CYCLASTRUM SP.		2.3	0.90
CYCLASTRUM SP.		1.9	1.08	CYCLASTRUM SP.		3.2	1.27
CYCLASTRUM SP.		0.5	0.27	CYCLASTRUM SP.		31.6	12.30
CYCLASTRUM SP.		0.9	0.54	CYCLASTRUM SP.		0.5	0.18
CYCLASTRUM SP.		1.9	1.08	CYCLASTRUM SP.		1.4	0.54
CYCLASTRUM SP.		5.6	3.24	CYCLASTRUM SP.		1.4	0.54
CYCLASTRUM SP.		20.0	11.62	CYCLASTRUM SP.		0.5	0.18
CYCLASTRUM SP.		0.5	0.27	CYCLASTRUM SP.		11.6	4.52
CYCLASTRUM SP.		0.5	0.27	CYCLASTRUM SP.		20.4	7.96
CYCLASTRUM SP.		4.6	2.70	CYCLASTRUM SP.		0.5	0.18
CYCLASTRUM SP.		0.9	0.54	CYCLASTRUM SP.		0.5	0.18
CYCLASTRUM SP.		8.8	5.14	CYCLASTRUM SP.		10.2	3.98
CYCLASTRUM SP.		0.5	0.27	CYCLASTRUM SP.		1.4	0.54
CYCLASTRUM SP.		0.9	0.54	CYCLASTRUM SP.		1.9	0.72
CYCLASTRUM SP.		2.8	1.62	CYCLASTRUM SP.			

SDC 4-4	22	76-6	3-49
ANABAENA SP.		0.9	1.21
ANKISTRIDESMUS FALCATUS V. MIRABILIS		0.9	1.21
ANKISTRIDESMUS GELIFACTUS		0.5	0.61
ANKISTRIDESMUS SP.		1.9	2.42
CYCLASTRUM SP.		1.9	2.42
CYCLASTRUM SP.		2.3	3.03
CYCLASTRUM SP.		2.8	3.64
CYCLASTRUM SP.		15.8	20.61
CYCLASTRUM SP.		6.5	8.48
CYCLASTRUM SP.		1.4	1.82
CYCLASTRUM SP.		0.9	1.21
CYCLASTRUM SP.		0.5	0.61
CYCLASTRUM SP.		5.6	7.27
CYCLASTRUM SP.		20.4	26.67
CYCLASTRUM SP.		0.5	0.61
CYCLASTRUM SP.		0.5	0.61
CYCLASTRUM SP.		2.3	3.03
CYCLASTRUM SP.		4.6	6.06
CYCLASTRUM SP.		0.5	0.61
CYCLASTRUM SP.		3.7	4.85
CYCLASTRUM SP.		0.5	0.61
CYCLASTRUM SP.		1.9	2.42

Appendix B, 9 July 1971 continued.

[illegible]

[illegible]

Appendix B, 9 July 1971 continued.

SDC 7-5	38	209.7	4.00
ANABAENA SP.		7.9	3.76
ANKISTRUDESCHUS FALCATUS V. MIRABILIS		2.8	1.33
ANKISTRUDESCHUS GELIFACTUS		0.9	0.44
BLUE-GREEN UNKNOWN FILAMENT		0.9	0.44
CHLAMYDOMONAS SP.		0.5	0.22
CLOSTERIUM ACIRCULARE		0.9	0.44
COELASTRUM SP.		0.9	0.44
COSMASTUM SP.		1.9	0.88
CRUCIGENIA SP.		2.8	1.33
CRYPTOMONAS SP.		5.1	2.43
CYCLUTELLA SP.		7.4	3.54
DINDRYON DIVERGENS		12.1	5.75
DINDRYON PETIFURNE		1.9	0.88
FLAGELLATES		0.5	0.22
FRAGILARIA CRUTUNENSIS		10.7	5.09
FRANCEIA DRUESCHERI		6.0	2.88
FRANCEIA OVALIS		1.9	0.88
FRANCEIA SP.		0.5	0.22
GLENJINIUM SP.		26.0	12.39
GLOEYCISTIS SP.		43.6	20.80
KIRCHNERIELLA SP.		1.9	0.88
LAGERHEIMIA SP.		1.9	0.88
NEPHROCYTIUM SP.		0.5	0.22
NITZSCHIA SP.		0.5	0.22
UCHROMONAS SP.		0.5	0.22
UEDUJINIUM SP.		1.9	0.88
OOCYSTIS SP.		32.0	15.27
UUCYSTIS SUBMARINA		0.5	0.22
PEDIASTRUM BRYANUM		0.9	0.44
PERIDIUM SP.		2.8	1.33
SCENEDESCHUS SP.		3.2	1.55
SPHAEROCYSTIS SP.		14.8	7.08
STEPHANODISCUS SP.		0.9	0.44
SYNEDRA FILIFORMIS		0.9	0.44
SYNEDRA SP.		0.5	0.22
TABELLARIA FENESTRATA		7.4	3.54
TETRAEDRUM CAUDATUM		0.5	0.22
TETRAEDRUM MINIMUM		3.2	1.55

Appendix B continued, 2 Sept. 1971.

CC-2	31	227.8	3.19 DC-3	29	200.9	2.93
ALBAHALNA SP.		0.9	0.41	ANABAPTIA SP.	0.9	0.46
ANKISTRONDESCHUS FALCATUS V. MIRABILIS		1.4	0.61	ANKISTRONDESCHUS FALCATUS V. MIRABILIS	1.9	0.92
ANKISTRONDESCHUS FALCATUS		0.5	0.20	APHANTHUCE SP.	1.9	0.92
ANKISTRONDESCHUS SP.		0.5	0.20	ASTRIFRILLA FURNOUSA	0.5	0.23
APHANTHUCE SP.		0.5	0.20	CEKATIUM HIRUDINIFLUA	1.4	0.69
CEKATIUM HIRUDINIFLUA		0.5	0.20	CHLAMYDOMYXAS SP.	7.4	3.70
CHLAMYDOMYXAS SP.		13.9	6.11	CHROCOCCUS SP.	8.4	4.16
CHROCOCCUS SP.		12.5	5.50	CLOSTERIUM SP.	0.3	0.23
CHELASTRUM SP.		0.9	0.41	CLOSTERIUM SP.	1.9	0.92
CHUCIGENIA IRREGULARIS		0.5	0.20	CHUCIGENIA IRREGULARIS	0.5	0.23
CHUCIGENIA QUADRATA		1.9	0.81	CHUCIGENIA QUADRATA	0.5	0.23
CHUCIGENIA RECTANGULARIS		2.3	1.02	CHUCIGENIA SP.	0.5	0.23
CHUCIGENIA SP.		1.9	0.81	CRYPTOMYXAS SP.	5.6	2.77
CRYPTOMYXAS SP.		13.0	5.70	DICTYOSPHARIUM SP.	0.5	0.23
CYCLONELLA SP.		0.5	0.20	DICTYOSPHARIUM SP.	1.4	0.69
DICTYOSPHARIUM SP.		0.5	0.20	DICHRONYX DIVERGENS	5.6	2.77
FLAGELLATES		4.2	1.83	FLAGELLATES	0.9	0.46
GLENIDIUM SP.		10.2	4.43	FRAGILARIA CRETODIENSIS	15.3	7.62
GLOCCOCYSTIS SP.		86.8	38.08	GLENIDIUM SP.	98.4	48.96
GLUCOPHRIELLA SP.		0.9	0.41	GLOCCOCYSTIS SP.	0.9	0.46
LAGEPHELMIA SP.		1.9	0.81	KLEINOPHRIELLA SP.	1.9	0.92
PELESTRA SP.		2.3	1.22	LAGEPHELMIA SP.	1.39	1.39
CHROMOMYXAS SP.		0.5	0.20	OCCHROMYXAS SP.	25.5	12.70
CHROMOMYXAS SP.		0.5	0.20	OCCHROMYXAS SP.	0.23	0.23
CHROMOMYXAS SP.		0.5	0.20	PEDIASTRUM DUPLEX	0.5	0.23
CHROMOMYXAS SP.		18.6	8.15	PEDIASTRUM SIMPLEX	1.15	1.15
CHROMOMYXAS SP.		0.5	0.20	PERIDIUM SP.	0.9	0.46
CHROMOMYXAS SP.		1.9	0.81	PERIDIUM SP.	11.1	5.54
CHROMOMYXAS SP.		1.4	0.61	SCENOCYSTIS SP.	0.9	0.46
CHROMOMYXAS SP.		38.5	16.90	SPHAEROCYSTIS SP.	11.1	5.54
CHROMOMYXAS SP.		7.0	3.05	TARELLARIA FENESTRATA	0.9	0.46
CHROMOMYXAS SP.		0.5	0.20	TARELLARIA FENESTRATA		
CHROMOMYXAS SP.				TETRAEDRON MINIMUM		



4-301

	33	307.2	3.05
ANAGAPNA SP.		0.9	0.30
ANKISTRONESMUS FALCATUS		0.9	0.30
ANKISTRONESMUS GELIFACTUS		2.3	0.76
APHANOTHECE SP.		0.5	0.15
BLUC-GREEN UNKOWNIN FILAMENT		0.5	0.15
CERATIUM HIRUNDINELLA		2.3	0.76
CHLAMYDOMONAS SP.		15.8	5.14
CHLOROCYCLUS SP.		15.8	5.14
CHLORSTIUM SP.		1.4	0.45
COSMARIUM SP.		1.4	0.45
CROCOTHEMIA TRICILIARIS		2.8	0.91
CROCOTHEMIA QUADRATA		0.5	0.15
CROCOTHEMIA SP.		1.9	0.60
CRYPTOMONAS SP.		14.8	4.83
CYCLOPHELIA SP.		0.9	0.30

4-20

Species	26	263.1	3.07
FRAGILARIA CRISTIFENSIS			
FRAGILARIA SP.	1.9		0.40
OLENDINIUM SP.	0.9		0.30
SCYLLICYSTIS SP.	9.3		3.02
KLIPPEPHELIA SP.	140.6		45.77
LACONICHELIA SP.	1.9		0.60
UCHNODORAS SP.	3.2		1.06
LOFYSTIS SP.	2.8		0.91
PENTASTEMA SP.	32.9		10.73
PERILUM SP.	0.5		0.15
PEYRONELLA SP.	0.5		0.15
SCYLLICYSTIS BILUGA	0.9		0.30
SCYLLICYSTIS SP.	0.5		0.15
SPHONDOCYSTIS SP.	1.4		0.45
TABELLARIA FENESTRATA	31.6		10.27
	7.4		2.42
		263.1	3.07
FRAGILARIA SP.	6.5		2.47
PHYLLOIDESMUS FALCATUS	0.9		0.35
PHYLLOIDESMUS SP.	0.5		0.13
APHANOCAPSA SP.	0.5		0.14
APHANOTHECE SP.	0.5		0.14
CHLADOMORPHAS SP.	6.5		2.47
CHLADOMORPHUS SP.	15.8		6.00
COSMARION SP.	2.3		0.80
CRUCIOLARIA THALLOIDIS	12.1		4.59

4-2

Appendix B, 2 Sept. 1971 continued.

NDC.25-1	32	283.0	3.21	NDC .5-0	38	628.5	3.53
ANABAENA SP.		0.5	0.16	ACTINASTRUM HANTZSCHII V. FLUVIATILE		0.9	0.15
ANKISTRODESMUS FALCATUS V. MIRABILIS		1.4	0.49	ANABAENA SP.		1.9	0.29
ANKISTRODESMUS FALCATUS		0.5	0.16	ANKISTRODESMUS GELIFACTUS		1.9	0.29
ANKISTRODESMUS GELIFACTUS		0.5	0.16	ANKISTRONIS SP.		2.8	0.44
APHANOTHECE SP.		1.4	0.49	APHANOTHECE SP.		0.9	0.15
CERATIUM HIRUNDINELLA		1.9	0.66	ASTERIUM FELLA FORMOSA		0.9	0.15
CHLAMYDOMONAS SP.		22.7	8.03	CERATIUM HIRUNDINELLA		0.9	0.15
CHROCOCCUS SP.		13.5	4.75	CHLAMYDOMONAS SP.		8.3	1.33
COELASTRUM SP.		1.4	0.49	CHROCOCCUS SP.		13.0	2.36
CUSMARIUM SP.		0.5	0.16	COELASTRUM SP.		0.9	0.15
CRUCIGENIA IRREGULARIS		0.9	0.33	CRUCIGENIA IRREGULARIS		1.9	0.29
CRUCIGENIA QUADRATA		1.4	0.49	CRUCIGENIA QUADRATA		3.7	0.59
CRUCIGENIA SP.		0.5	0.16	CRUCIGENIA SP.		10.2	1.02
CRYPTOMONAS SP.		16.2	5.74	CRYPTOMONAS SP.		76.9	12.24
DINORRYNOM DIVERGENS		3.7	1.31	CYCLOTHELLA SP.		0.9	0.15
FLAGELLATES		2.3	0.82	DINORRYNOM DIVERGENS		6.5	1.03
FRAGILARIA CAPUCINA		0.5	0.16	FLAGELLATES		69.5	11.06
GLENODINIUM SP.		10.7	3.77	FRAGILARIA CAPUCINA		1.9	0.29
GLENOCYSTIS SP.		111.8	39.51	FRAGILARIA CRUTOPIENSIS		7.4	1.14
KIRCHNERITELLA SP.		0.9	0.33	FRAGILARIA SP.		5.6	0.98
LAGERHEIMIA SP.		0.9	0.33	GLENODINIUM SP.		26.9	4.28
LAGERHEIMIA SP.		2.8	0.98	GLENOCYSTIS SP.		183.5	29.20
MELOSIRA SP.		0.5	0.16	GLENKINIA SP.		0.9	0.15
MICROCYSTIS SP.		1.4	0.49	KIRCHNERITELLA SP.		0.9	0.15
MONOCYSTIS SP.		23.2	8.20	LAGERHEIMIA SP.		1.9	0.29
PEDIASTRUM SIMPLEX		0.5	0.16	MELOSIRA SP.		0.4	0.15
PENIDINIUM SP.		3.7	1.31	PEDIASTRUM SP.		0.9	0.15
SCENEDESMUS SP.		6.5	2.30	NITZSCHIA ACICULARIS		3.7	0.59
SPHAEROCYSTIS SP.		36.2	12.79	NITZSCHIA SP.		6.5	1.03
STEPHANODISCUS SP.		0.5	0.16	UCHRONONAS SP.		0.9	0.15
TABELLARIA FENESTRATA		13.5	4.75	UCHRONONAS SP.		20.4	3.24
TETRAEDRON MINIMUM		0.5	0.16	UCYSTIS SP.		0.9	0.15
				PEDIASTRUM SP.		15.8	2.51
				PERIDINIUM SP.		0.9	0.15
				SCENEDESMUS QUADRICAUDA		11.1	1.77
				SCENEDESMUS SP.		0.9	0.15
				SCHACEDERIA SP.		66.7	10.62
				SPHAEROCYSTIS SP.		67.7	10.77
				TABELLARIA FENESTRATA			

33	310.4	3.44	39	325.3	2.08
ARBORENA SP.	2.8	0.90	ACTINASTRUM HANTZSCHII V. FLUVIATILE	1.9	0.57
ARKISTRODESMUS FALCATUS V. MIRABILIS	0.5	0.15	ANABAEIA SP.	0.9	0.29
ARKISTRODESMUS GELIFACTUS	0.9	0.30	ANKISTRODESMUS FALCATUS V. MIRABILIS	1.9	0.57
APHANOTHECE SP.	0.5	0.15	ARKISTRODESMUS GELIFACTUS	0.5	0.14
ASTEPIONELLA FORMOSA	0.5	0.15	APHANOCAPSA SP.	0.5	0.14
CERATIUM HIRUNDINELLA	0.5	0.15	APHANOTHECE SP.	0.5	0.14
CHLAMYDOMONAS SP.	16.7	5.38	BLUE-GREEN UNKNOWN FILAMENT	0.5	0.14
CHLAMYDOMONAS SP.	7.9	2.54	CERATIUM HIRUNDINELLA	0.5	0.14
CHLAMYDOMONAS SP.	0.9	0.30	CHLAMYDOMONAS SP.	0.9	0.29
COSMARION SP.	0.5	0.15	CHLAMYDOMONAS SP.	20.4	6.28
CRUCIGENIA IRREGULARIS	0.5	0.15	COSMARION SP.	4.6	1.43
CRYPTOMONAS SP.	0.5	0.15	CRUCIGENIA IRREGULARIS	0.5	0.14
DINOBRYON DIVERGENS	22.7	7.32	CRUCIGENIA SP.	0.9	0.29
FLAGELLATES	2.8	0.90	CRYPTOMONAS SP.	1.4	0.43
FRAGILARIA CAPUCINA	3.2	1.05	CYCLOTELLA SP.	14.8	4.56
FRAGILARIA CRUTONENSIS	3.2	1.05	DINOBRYON DIVERGENS	1.4	0.43
GLENODINIUM SP.	24.6	7.92	FLAGELLATES	3.7	1.14
GLOECYSTIS SP.	20.4	6.58	FRAGILARIA CAPUCINA	4.6	1.43
GREEN COLONY, UNKNOWN	108.6	34.98	FRAGILARIA CRUTONENSIS	1.4	0.43
KIPCHERITELLA SP.	0.9	0.30	FRAGILARIA CRUTONENSIS	5.1	1.57
LAGERHEIMIA SP.	0.9	0.30	GLENODINIUM SP.	0.5	0.14
COPULONAS SP.	3.2	1.05	GLOECYSTIS SP.	7.9	2.43
CERATONIUM SP.	0.5	0.15	GREEN COLONY, UNKNOWN	169.4	52.07
OSCILLATORIA SP.	17.2	5.53	KIPCHERITELLA SP.	0.5	0.14
PROTIASSTRUM BURNIUM	0.5	0.15	LAGERHEIMIA SP.	1.4	0.43
PROTIASSTRUM SIMPLEX	0.5	0.15	LAGOSIRA SP.	0.5	0.14
PERIDIUM SP.	10.7	3.44	NITZSCHIA SP.	8.3	2.71
SCHEDESMUS SP.	6.0	1.94	OCCHROMONAS SP.	0.9	0.29
SPHAEROCYSTIS SP.	26.0	8.37	OCCHROMONAS SP.	1.9	0.57
TARELLARIA FFNESTRATA	23.7	7.62	PERIDIUM SP.	21.3	6.56
TETRAEDRON MINIMUM	0.9	0.30	SCHEDESMUS SP.	3.7	1.14
			SCHEDESMUS QUADRICAUDA	1.4	0.43
			SCHEDESMUS SP.	7.0	2.14
			SPHAEROCYSTIS SP.	5.6	1.71
			STEPHANODISCUS SP.	0.5	0.14
			TARELLARIA FFNESTRATA	25.1	7.70
			TETRAEDRON CAUDATUM	0.5	0.14
			TETRAEDRON MINIMUM	1.4	0.43
			TETRAEDRON TRIGONUM	0.5	0.14
			TREURARIA SP.	0.5	0.14

WDC .5-3

120

NDC 1-2	32	195.8	3.43	NDC 1-3	33	265.4	3.02
ACTINASTRUM HANTZSCHII V. FLUVIATILE			0.24	ACTINASTRUM HANTZSCHII V. FLUVIATILE			
ANKISTRODES MUS FALCATUS V. MIRABILIS		0.5	0.47	ANAPACHA SP.		0.5	0.17
APHANOTHECE SP.		0.9	0.47	ANKISTRODES MUS GELIFACTUS		0.9	0.35
ASTERIONELLA FORMOSA		0.9	0.24	ANKISTRODES MUS SP.		0.5	0.17
BLUE-GREEN UNKNOWN FILAMENT		0.5	0.24	APHANOTHECE SP.		0.5	0.17
CERATIUM HIRUNDINELLA		0.5	0.24	ASTERIONELLA FORMOSA		0.5	0.17
CHLAMYDOMONAS SP.		14.4	7.35	CERATIUM HIRUNDINELLA		2.3	0.37
CHLOROCOCCUS SP.		10.7	5.45	CHLAMYDOMONAS SP.		14.4	5.42
COELASTRUM SP.		0.5	0.24	CHLOROCOCCUS SP.		6.6	3.32
CRUCIGERIA SP.		1.9	0.95	COELASTRUM SP.		0.5	0.17
CRYPTOMONAS SP.		7.4	3.79	CRUCIGERIA SP.		0.5	0.17
CYCLOTOMELLA SP.		2.3	1.18	CRYPTOMONAS SP.		4.6	1.75
CYNORRYN DIVERGENS		1.4	0.71	CYCLOTOMELLA SP.		0.5	0.17
FLAGELLATES		4.6	2.37	CYNORRYN DIVERGENS		1.9	0.70
FRAGILARIA CAPICINA		4.6	0.71	FLAGELLATES		16.7	6.29
FRAGILARIA CROTONE NSIS		1.4	2.84	FRAGILARIA CAPICINA		0.5	0.17
GLEPHODINIUM SP.		5.6	3.55	FRAGILARIA CROTONE NSIS		3.2	1.22
GLEPHOCYSTIS SP.		7.0	37.91	GLEPHODINIUM SP.		9.3	3.50
KIPCHNERIELLA SP.		74.2	0.47	GLEPHOCYSTIS SP.		0.5	0.17
LAGEPHEIMIA SP.		0.9	0.24	KIPCHNERIELLA SP.		1.9	0.70
LOPHOMONAS SP.		1.9	0.95	LAGEPHEIMIA SP.		113.7	42.83
LOPHOCYSTIS SP.		18.1	9.24	LOPHOMONAS SP.		0.5	0.17
PEDIASTRUM BORYANUM		0.9	0.47	LOPHOCYSTIS SP.		3.7	1.40
PEDIASTRUM DUPLEX		0.5	0.24	PEDIASTRUM BORYANUM		0.9	0.35
PEDIASTRUM SIMPLEX		0.5	0.24	PEDIASTRUM DUPLEX		0.5	0.17
PEPIDINIUM SP.		1.9	0.95	PEDIASTRUM SIMPLEX		0.5	0.17
SCENEDESMUS QUADRICAUDA		0.5	0.24	PEPIDINIUM SP.		0.5	0.17
SCENEDESMUS SP.		8.8	4.50	SCENEDESMUS QUADRICAUDA		25.5	9.62
SPHAEROCYSTIS SP.		16.7	8.53	SCENEDESMUS SP.		1.4	0.52
TABELLARIA FENESTRATA		8.8	4.50	SPHAEROCYSTIS SP.		0.5	0.17
TETRAEDRON CAUDATUM		0.5	0.24	TABELLARIA FENESTRATA		0.9	0.35
TETRAEDRON MINIMUM		0.5	0.24	TETRAEDRON CAUDATUM		41.8	15.73
				TETRAEDRON MINIMUM		4.2	1.57

Appendix B, 2 Sept. 1971 continued.

NUC 2-3	36	645.2	3.49	NDC 2-1	30	262.2	3.21
ACTINASTRUM HAMTZSCHII V. FLUVIATILE							
ANABAENA SP.		0.9	0.14	ANKISTRODES MUS FALCATUS V. MIRABILIS		3.7	1.42
ANKISTRODES MUS FALCATUS V. MIRABILIS		2.8	0.43	ANKISTRODES MUS FALCATUS		1.4	0.53
ANKISTRODES MUS GELIFACTUS		1.9	0.29	ANKISTRODES MUS GELIFACTUS		0.9	0.35
ANKISTRODES MUS SP.		0.9	0.14	APHANTHICE SP.		0.9	0.35
APHANTHICE SP.		3.7	0.57	ASTERIGMELLA FORMOSA		0.5	0.18
APHANTHICE SP.		1.9	0.29	BLUF-GREEN UNKNOWN FILAMENT		10.2	0.18
CHLAMYDOMONAS SP.		10.2	1.58	CHLAMYDOMONAS SP.		5.6	3.89
CHLAMYDOMONAS SP.		22.2	3.45	CHLAMYDOMONAS SP.		0.9	2.12
CHLAMYDOMONAS SP.		0.9	0.14	COELASTRUM SP.		0.9	0.35
COELASTRUM SP.		1.9	0.29	COSPARIUM SP.		0.5	0.18
CRUCIGENIA IRREGULARIS		0.9	0.14	CRUCIGENIA IRREGULARIS		6.5	2.48
CRUCIGENIA QUADRATA		0.9	0.14	CRUCIGENIA QUADRATA		2.8	1.06
CRUCIGENIA SP.		0.9	0.14	CRUCIGENIA SP.		1.9	0.71
CRYPTOPHORAS SP.		38.9	6.03	CRYPTOPHORAS SP.		16.2	6.19
CYCLOTELLA SP.		1.9	0.29	CRYPTOPHORAS SP.		3.7	1.42
DINOBRYON DIVERGENS		7.4	1.15	DINOBRYON DIVERGENS		3.2	1.24
FLAGELLATES		21.3	3.30	FLAGELLATES		9.7	3.72
FRAGILARIA CRYPTONENSIS		9.3	1.44	GLAUCINIUM SP.		118.8	45.31
GLAUCINIUM SP.		20.4	3.16	GLAUCINIUM SP.		2.3	0.38
GLAUCINIUM SP.		171.5	26.58	GREEN COLONY, UNKNOWN		1.9	0.71
GREEN COLONY, UNKNOWN		1.9	0.29	KIRCHNEPIELLA SP.		1.9	0.71
KIRCHNEPIELLA SP.		0.9	0.14	MELOSIRA SP.		0.9	0.35
MELOSIRA SP.		38.9	6.03	MELOSIRA SP.		0.5	0.18
MICROCYSTIS SP.		0.9	0.14	LEPTOGONIUM SP.		15.3	5.84
NITZSCHIA SP.		1.9	0.29	NOCTYSIS SP.		0.9	0.35
LEPTOGONIUM SP.		2.8	0.43	PEDIASTRUM SP.		7.0	2.65
NOCTYSIS SP.		26.0	4.02	PERIDINIUM SP.		3.2	1.24
OSILLATORIA SP.		0.9	0.14	SCENEDESMUS SP.		18.6	7.08
PEDIASTRUM BOYANUM		0.9	0.14	SPHAEROCYSTIS SP.		20.9	7.96
PERIDINIUM SP.		36.2	5.60	TABELLARIA FENESTRATA		0.9	0.35
SCENEDESMUS RIJUGA		0.9	0.14	TETRAEDRON MINIMUM			
SCENEDESMUS QUADRICAUDA		0.9	0.14				
SCENEDESMUS SP.		10.2	1.53				
SPHAEROCYSTIS SP.		61.2	9.48				
TABELLARIA FENESTRATA		139.0	21.55				
TETRAEDRON MINIMUM		0.9	0.14				

NJC 2-2	43	415.7	3.55	NJC 2-3	39	274.2	3.40
ACTINASTRUM HANTZSCHII V. FLUVIATILE		2.8	0.67	ACTINASTRUM HANTZSCHII V. FLUVIATILE		0.5	0.17
ANABAENA SP.		1.4	0.33	ANKISTRODESMIUS FALCATUS V. MIRABILIS		0.9	0.34
ANKISTRODESMIUS FALCATUS V. MIRABILIS		4.6	1.12	ANKISTRODESMIUS FALCATUS		1.4	0.51
ANKISTRODESMIUS GELIFACTUS		0.5	0.11	ANKISTRODESMIUS GELIFACTUS		0.5	0.17
ANKISTRODESMIUS SP.		2.8	0.67	APHANOCAPSA SP.		0.5	0.17
APHANOCAPSA SP.		0.5	0.11	APHANOTHECE SP.		1.4	0.51
BLUE-GREEN UNKNOWN FILAMENT		0.5	0.11	CERATIUM HIFUDDINELLA		0.9	0.34
CHLAMYDOMONAS SP.		14.8	3.57	CHLAMYDOMONAS SP.		21.8	7.95
CHROCOCCUS SP.		4.6	1.12	CHROCOCCUS SP.		20.0	7.28
COELASTRUM SP.		0.5	0.11	COELASTRUM SP.		0.9	0.34
COSMARION SP.		0.5	0.11	COSMARION SP.		0.9	0.34
CRUCIGERIA TREFUGULARIS		0.9	0.22	CRUCIGERIA TREFUGULARIS		2.8	1.02
CRUCIGERIA QUADRATA		1.9	0.45	CRUCIGERIA QUADRATA		2.3	0.85
CRUCIGERIA SP.		5.6	1.34	CRUCIGERIA SP.		0.5	0.17
CRYPTOMONAS SP.		19.0	4.58	CRYPTOMONAS SP.		7.9	2.88
CYCLOTELLA SP.		4.6	1.12	CYCLOTELLA SP.		0.5	0.17
DICTYOSPHAERIUM SP.		0.5	0.11	DICTYOSPHAERIUM SP.		0.5	0.17
DIMORPHYON DIVERGENS		4.6	1.12	DIMORPHYON DIVERGENS		5.1	1.86
FLAGELLATES		5.6	1.34	FLAGELLATES		2.3	0.85
FRAGILARIA CROTONEENSIS		14.8	3.57	FRAGILARIA CAPIICINA		0.5	0.17
FRAGILARIA SP.		1.4	0.33	FRAGILARIA CROTONEENSIS		1.9	0.68
GLENTIUM SP.		7.0	1.67	FRAGILARIA DROESCHERT		0.5	0.17
GLENEOCYSTIS SP.		153.1	36.83	GLENEOCYSTIS SP.		8.4	3.05
GREEN COLUMN, UNKNOWN		0.5	0.11	GLENEOCYSTIS SP.		108.6	39.59
NEOTHECATELLA SP.		2.3	0.50	KIPCHINTELLA SP.		0.9	0.34
LACHNEPEDIA SP.		0.5	0.11	LACHNEPEDIA SP.		2.8	1.02
PELOSIRA SP.		33.9	8.15	LACHNEPEDIA SP.		1.4	0.51
MICROCYSTIS SP.		0.5	0.11	PELOSIRA ISLANDICA		6.5	2.37
MITZSCHIA SP.		0.5	0.11	PELOSIRA SP.		0.5	0.17
COCHONARIS SP.		7.0	1.67	MITZSCHIA SP.		1.4	0.51
COCCYSTIS SP.		27.4	6.58	COCHONARIS SP.		23.7	8.43
PECTASTRUM DUPLEX		0.9	0.22	COCCYSTIS SP.		2.3	0.85
PECTASTRUM SIMPLEX		0.5	0.11	PECTASTRUM SP.		0.9	0.34
PECTASTRUM SP.		0.5	0.11	SCHLAFDUSIUS DICTYOPHUS		0.5	0.17
PECTIDIUM SP.		3.7	0.39	SCHLAFDUSIUS QUADRICAUDA		3.7	1.35
SCENEDESMIUS RIJUGA		0.5	0.11	SCENEDESMIUS SP.		26.9	9.81
SCENEDESMIUS QUADRICAUDA		0.5	0.11	SCENEDESMIUS SP.		0.5	0.17
SCENEDESMIUS SP.		11.6	2.70	SPHAEROCYSTIS SP.		10.7	3.39
SPHAEROCYSTIS SP.		35.3	8.40	SYNELMA SP.		0.5	0.17
STYPHACODISCUS SP.		0.5	0.11	TABELLARIA FENESTRATA		0.5	0.17
TABELLARIA FENESTRATA		36.2	8.71	TABELLARIA FENESTRATA		10.7	3.39
TETRAEDRON CAUDATUM		0.5	0.11	TETRAEDRON MINIMUM		0.5	0.17
TETRAEDRON MINIMUM		0.5	0.11				

NDC	2-4	25	322.0	2.63	NDC 4-0	36	1471.1	2.31
	CHARLENA SP.		3.7	1.15	ACTINASTRUM HANTZSCHII V. FLUVIATILE		1.9	0.13
	ANKISTRODESMIUS FALCATUS V. MIRABILIS		0.5	0.14	ANKISTRODESMIUS FALCATUS V. MIRABILIS		2.8	0.19
	ANKISTRODESMIUS GELIFACTUS		2.3	0.72	ANKISTRODESMIUS GELIFACTUS		1.9	0.13
	APHANOCAPSA SP.		0.5	0.14	ANKISTRODESMIUS GELIFACTUS		2.8	0.19
	CEPATIUM HIRUNDINELLA		1.4	0.43	BLUF-GREEN UNKNOWN FILAMENT		0.9	0.06
	CHLAMYDOMONAS SP.		12.1	3.75	CEPATIUM HIRUNDINELLA		0.9	0.06
	CHROOCOCCLUS SP.		14.4	4.47	CHLAMYDOMONAS SP.		3.7	0.25
	COFLASTRUM SP.		2.3	0.72	CHROOCOCCLUS SP.		6.5	0.44
	CRUCIGENIA IRREGULARIS		4.6	1.44	COFLASTRUM SP.		1.9	0.13
	CRUCIGENIA SP.		0.9	0.29	CRUCIGENIA IRREGULARIS		1.9	0.13
	CRYPTOMONAS SP.		39.9	12.39	CRUCIGENIA SP.		2.8	0.19
	CYCLOTELLA SP.		0.5	0.14	CRYPTOMONAS SP.		60.3	4.10
	DIHOBRYUM DIVERGENS		6.0	1.87	CYCLOTELLA SP.		5.6	0.38
	FLAGELLATES		8.8	2.74	DICTYOSPHAERIUM SP.		0.9	0.06
	FRAGILARIA CRYPTONENSIS		0.5	0.14	DIHOBRYUM DIVERGENS		8.3	0.57
	GLENDINIUM SP.		2.3	0.72	FLAGELLATES		28.7	1.95
	GLOBOCYSTIS SP.		167.0	51.87	FRAGILARIA CRYPTONENSIS		0.9	0.06
	GREEN COLONY, UNKNOWN		0.5	0.14	GLENDINIUM SP.		23.2	1.51
	KIRCHNERIELLA SP.		0.5	0.14	GLOBOCYSTIS SP.		260.5	17.71
	LAGEPHEITIA SP.		2.3	0.72	GREEN COLONY, UNKNOWN		0.9	0.06
	NITZSCHIA SP.		0.5	0.14	KIRCHNERIELLA SP.		2.8	0.19
	OLIGOMONAS SP.		23.2	7.20	MELOSIRA SP.		803.7	54.83
	COCYSTIS SP.		25.1	7.78	NITZSCHIA SP.		0.9	0.06
	TABELLARIA FENESTRATA		1.9	0.58	OLIGOMONAS SP.		0.9	0.06
	TETRAEDRUM MINIMUM		0.5	0.14	PERIDINIUM SP.		20.4	1.39
					OSCILLATORIA SP.		0.9	0.06
					PETIASTRUM DUPLEX		0.9	0.06
					PETIASTRUM SIMPLEX		4.6	0.32
					PERIDINIUM SP.		1.9	0.13
					SCENEDSMIUS BIJUGA		1.9	0.13
					SCENEDSMIUS QUADRICAUDA		13.0	0.81
					SCENEDSMIUS SP.		26.0	1.70
					SPHAERICYSTIS SP.		0.9	0.06
					SYNEDRA SP.		170.6	11.59
					TABELLARIA FENESTRATA			



Appendix B, 2 Sept. 1971 continued.

NDC 4-1	33	404.2	3.37	ADC 4-2	35	252.0	3.54
ACTINASTRUM HANTZSCHII V. FLUVIATILE							
AKABAENA SP.	1.9	0.46				2.3	0.92
ANKISTRODESMIUS FALCATUS V. MIRABILIS	0.9	0.23				2.3	0.92
ANKISTRODESMIUS SP.	2.8	0.69				1.4	0.55
ANKISTRODESMIUS SP.	1.9	0.46				0.5	0.10
BLUE-GREEN UNKNOWN FILAMENT	0.9	0.23				0.5	0.18
CHROMOCOCCUS SP.	13.0	3.21				0.5	0.18
CHELASTRUM SP.	0.9	0.23				7.0	2.76
COSMARUM SP.	0.9	0.23				5.6	2.21
CRUCIGENIA IRREGULARIS	0.9	0.23				0.5	0.18
CRUCIGENIA QUADRATA	3.7	0.92				1.4	0.55
CRUCIGENIA SP.	6.5	1.61				4.2	1.66
CRYPTOMONAS SP.	15.8	3.90				7.4	2.95
CYCLOITELLA SP.	2.8	0.69				2.8	1.10
DICTYOSPHAERIUM SP.	0.9	0.23				2.4	1.10
DIMOBRYON DIVERGENS	3.7	0.92				6.5	2.58
FLAGELLATES	1.9	0.46				18.1	7.18
FRAGILARIA CROTONENSIS	9.3	2.29				2.3	0.92
GLIMMIDIUM SP.	20.4	5.05				93.3	37.02
GLIMMIDIUM SP.	165.9	41.06				0.9	0.37
GREEN COLONY, UNKNOWN	0.9	0.23				1.4	0.55
HELUSINA SP.	34.3	8.49				1.9	0.74
MICROCYSTIS SP.	0.9	0.23				17.6	7.00
NITZSCHIA SP.	0.9	0.23				0.5	0.18
CHROMOCYAS SP.	4.6	1.15				5.1	2.03
HEUDOGGIUM SP.	3.7	0.92				1.4	0.55
GUCYSTIS SP.	19.5	4.82				9.3	3.68
PENIUM SP.	0.9	0.23				0.5	0.18
PEFIDIUM SP.	26.9	6.65				0.5	0.18
SCENEDESPIUS QUARTICAUDA	0.9	0.23				0.5	0.18
SCENEDESPIUS SP.	12.1	2.98				1.4	0.55
SPHAEROCYSTIS SP.	11.1	2.75				4.6	1.84
STEPHANODISCUS SP.	0.9	0.23				31.6	12.52
TABELLARIA FENESTRATA	31.5	7.80				0.5	0.18
ACTINASTRUM HANTZSCHII V. FLUVIATILE						13.5	5.34
ANKISTRODESMIUS FALCATUS V. MIRABILIS						0.5	0.18
ANKISTRODESMIUS GELIFACTUS						1.9	0.74
ANKISTRODESMIUS SP.							
BLUE-GREEN UNKNOWN FILAMENT							
CERATIUM MIRIBIDIFELLA							
CHLAMYDOMONAS SP.							
CHROMOCOCCUS SP.							
CHELASTRUM SP.							
CRUCIGENIA QUADRATA							
CRUCIGENIA SP.							
CRYPTOMONAS SP.							
CYCLOITELLA SP.							
DIMOBRYON DIVERGENS							
FLAGELLATES							
FRAGILARIA CROTONENSIS							
GLIMMIDIUM SP.							
GLIMMIDIUM SP.							
KLEINODITELLA SP.							
LAGEHAPPIA SP.							
MELOSIRA ISLANDICA							
PELOSIRA SP.							
MICROCYSTIS SP.							
LEIMODONAS SP.							
GLIMMIDIUM SP.							
GUCYSTIS SP.							
PEDICULUM DUPLEX							
PEFIDIUM SP.							
PEFIDIUM SP.							
SCENEDESPIUS SP.							
SPHAEROCYSTIS SP.							
SYNEDRA SP.							
TABELLARIA FENESTRATA							
TETRAEDRUM CAUDATUM							
TETRAEDRUM MINIMUM							

Appendix B, 2 Sept. 1971 continued.

FIG 4-3	27	271.0	3.21	NDC 4-4	23	191.6	2.31
ANABARIA SP.		2.3	1.03	ANABARIA SP.		0.9	0.48
ANKISTROPSHUS SP.		0.5	0.17	ANKISTROPSHUS GELIFACTUS		0.9	0.48
APHANOCAPSA SP.		1.4	0.51	APHANOCAPSA SP.		0.5	0.24
APHANOTHELCE SP.		0.5	0.17	APHANOTHELCE SP.		1.4	0.73
CERATIUM MIRINDINELLA		0.9	0.34	CERATIUM MIRINDINELLA		0.9	0.48
CHLAMYDOMONAS SP.		15.3	5.65	CHLAMYDOMONAS SP.		16.2	8.47
CHLOROCOCCUS SP.		15.8	5.82	CHLOROCOCCUS SP.		12.1	6.30
CULASTRIUM SP.		0.9	0.14	CRUCIGENIA IRREGULARIS		0.5	0.24
COSMARION SP.		0.9	0.14	CRUCIGENIA QUADRATA		1.9	0.97
CRUCIGENIA IRREGULARIS		1.9	0.58	CRUCIGENIA RECTANGULARIS		3.7	1.94
CRUCIGENIA QUADRATA		1.4	0.51	CRUCIGENIA SP.		0.5	0.24
CRUCIGENIA RECTANGULARIS		1.4	0.51	CRYPTOPHYIAS SP.		9.3	4.84
CRUCIGENIA SP.		0.5	0.17	CYCLOTELLA SP.		0.9	0.48
CRYPTOPHYIAS SP.		28.3	10.45	DINOPHYCON DIVERGENS		4.2	2.18
CYCLOTELLA SP.		0.9	0.34	FLAGELLATES		6.0	3.15
DINOPHYCON DIVERGENS		3.2	1.20	GLIMODINIUM SP.		10.7	5.27
FLAGELLATES		10.2	3.77	GLIMOCYSTIS SP.		93.7	48.91
FRAGILARIA CROTONENSIS		1.4	0.51	KIRCHHEIMIA SP.		0.5	0.24
GLIMODINIUM SP.		8.3	3.25	LAGERHEIMIA SP.		0.5	0.24
GLIMOCYSTIS SP.		105.3	39.34	LCHLORONAS SP.		3.7	1.94
GREEN COLONY, UNKNOWN		0.5	0.17	OLCISTIS SP.		20.0	10.41
LAGERHEIMIA SP.		2.8	1.03	SPHAEROCYSTIS SP.		1.9	0.97
LCHLORONAS SP.		19.5	7.19	TABELLARIA FINESTRATA		0.9	0.48
OLCISTIS SP.		23.7	8.73				
SPHAEROCYSTIS SP.		18.8	6.95				
TABELLARIA FINESTRATA		2.3	0.86				
TETRAEDUPON MINIMUM		0.9	0.34				

Appendix B, 2 Sept. 1971 continued.

Aug. 7-1	31	270.5	2.77	NOV 7-2	31	262.6	2.77
ACTINASTRUM HANTZSCHII V. FLUVIATILE							
ANABALMA SP.		0.6	0.17	ANABALMA SP.		1.9	0.71
ANKISTRUFESMUS FILICATUS V. MIRABILIS		1.9	0.69	ANKISTRUFESMUS FILICATUS V. MIRABILIS		0.5	0.16
ANKISTRUFESMUS GELIFACTUS		0.9	0.34	ANKISTRUFESMUS FILICATUS		0.9	0.35
BLUE-GREEN UNKNOWN FILAMENT		0.5	0.17	ANKISTRUFESMUS GELIFACTUS		0.5	0.18
CEPATIUM HIRUDINELLA		0.9	0.34	ANKISTRUFESMUS SP.		0.5	0.18
CHILAMYDOMONAS SP.		1.4	0.51	APHANOCAPSAS SP.		0.5	0.18
CHROCOCCUS SP.		20.0	7.78	APHANOCAPSAS SP.		0.5	0.18
COSMARION SP.		6.0	2.23	ASTERIGATILLA FORMOSA		0.5	0.19
CRUCIGENTIA IREFUGULARIS		1.4	0.51	CHLAMYDOMONAS SP.		13.9	5.20
CRUCIGENTIA QUADRATA		1.4	0.51	CHROCOCCUS SP.		11.1	4.24
CRUCIGENTIA SP.		1.4	0.51	COELASTRUM SP.		0.9	0.35
CRYPTOMONAS SP.		3.2	1.20	CRUCIGENTIA IREFUGULARIS		2.3	0.88
CYCLCTELLA SP.		18.6	6.66	CRUCIGENTIA QUADRATA		0.5	0.18
DICTYOSPHAERIUM SP.		0.5	0.17	CRUCIGENTIA SP.		2.3	0.86
DINORRYON DIVERGENS		0.5	0.17	CRYPTOMONAS SP.		26.9	10.25
FLAGELLATES		3.2	1.20	DINORRYON DIVERGENS		2.3	0.86
FRAGILARIA CAPUCINA		5.1	1.69	FLAGELLATES		0.4	3.18
FRAGILARIA CRUTONENSIS		0.9	0.34	GLENNIDIUM SP.		7.9	3.00
GLENNIDIUM SP.		0.5	0.17	GLENNIDIUM SP.		123.9	47.17
GLENNIDIUM SP.		27.8	10.29	GLENNIDIUM SP.		0.9	0.35
GLENNIDIUM SP.		129.9	48.03	GREEN COLONY, UNKNOWN		0.5	0.18
GREEN COLONY, UNKNOWN		0.9	0.34	KIRCHNERIELLA SP.		2.8	1.06
KIRCHNERIELLA SP.		0.5	0.17	LAGEHRIELLA SP.		0.9	0.35
LAGEHRIELLA SP.		2.3	0.86	MELUSIA SP.		0.5	0.18
LCHPOMONAS SP.		13.0	4.80	MICROCYSTIS SP.		0.5	0.18
MICROCYSTIS SP.		16.2	6.00	MITZSCHIA SP.		0.5	0.18
PERIDIUM SP.		0.9	0.34	NCIPHOONAS SP.		6.4	3.18
SCENEDESMUS SP.		2.3	0.86	OPICYSTIS SP.		18.1	6.69
SPHAEROCYSTIS SP.		5.6	2.06	PERIDIUM SP.		0.5	0.18
TAFELLARIA FENESTRATA		0.9	0.34	SCENEDESMUS SP.		2.3	0.88
TETRAEDRON MINIMUM		1.4	0.51	SPHAEROCYSTIS SP.		20.4	7.77
				TETRAEDRON MINIMUM		0.9	0.35

Appendix B, 2 Sept. 1971 continued.

NDC 7-3	29	288.5	2.81	NDC 7-4	30	323.4	2.92
ALIAJAEIA SP.		1.3	0.44	ANABAENA SP.		0.9	0.29
APHANTHESCE SP.		0.4	0.15	ANKISTRODES MUS GELIFACTUS		2.3	0.72
CERATIUM HIRUNDINELLA		0.8	0.29	ANKISTRODES MUS SP.		0.5	0.14
CHLAMYDOMONAS SP.		9.7	3.35	APHANOCAPSA SP.		0.9	0.29
CHRONOCOCUS SP.		15.5	5.39	APHANTHESCE SP.		0.5	0.14
COFLASTRUM SP.		1.3	0.44	CERATIUM HIRUNDINELLA		0.9	0.29
CRUCIGENTIA IFREGULARIS		5.0	1.75	CHLAMYDOMONAS SP.		7.4	2.30
CRUCIGENTIA QUADRATA		0.4	0.15	CHRONOCOCUS SP.		17.2	5.31
CRUCIGENTIA SP.		2.9	1.02	COFLASTRUM SP.		0.5	0.14
CRYPTOMONAS SP.		45.8	15.87	CUSPIDIUM SP.		0.5	0.14
CYCLUTELLA SP.		0.4	0.15	CRUCIGENTIA QUADRATA		0.5	0.14
DINODRYON DIVERGENS		1.7	0.58	CRUCIGENTIA SP.		6.0	1.87
FLAGELLATES		9.2	3.20	CRYPTOMONAS SP.		8.8	2.73
FRAGILARIA CAPUCINA		0.4	0.15	CYCLUTELLA SP.		52.0	16.07
FRAGILARIA CRUTONENSIS		1.7	0.58	DINODRYON DIVERGENS		1.4	0.43
FRANCETA QUIESCHERI		0.4	0.15	FLAGELLATES		0.5	0.14
GLEMUDINIUM SP.		3.8	1.31	FRAGILARIA CAPUCINA		1.9	0.57
GLENOCYSTIS SP.		136.9	47.45	FRAGILARIA CRUTONENSIS		6.5	2.01
GPER CULON, UNKNOWN		0.4	0.15	GLEMUDINIUM SP.		2.8	0.80
KIRCHNERIELLA SP.		0.8	0.29	GLENOCYSTIS SP.		144.3	44.62
LAGERHETIA SP.		2.9	1.02	GUPHOSPIAETIA APUNTHA		0.5	0.14
NITZSCHIA SP.		0.4	0.15	LAGERHETIA SP.		1.4	0.43
OCHROMONAS SP.		12.2	4.22	NITZSCHIA SP.		0.9	0.29
OUCYSTIS SP.		23.9	8.30	OCHROMONAS SP.		20.9	6.46
OPHIOCYTIUM SP.		0.4	0.15	OUCYSTIS SP.		26.9	8.32
PENTUM CYLINDRUM		0.4	0.15	SCENEDES MUS SP.		0.9	0.29
PERIDINIUM SP.		0.8	0.29	SPHAEROCYSTIS SP.		11.1	3.44
SCENEDES MUS SP.		1.7	0.58	TABELLARIA FINESTRATA		0.5	0.14
SPHAEROCYSTIS SP.		6.7	2.33	TETRALEDEM MINIMUM		0.5	0.14
				WESTFILA LINFAKIS		1.4	0.43

[illegible]

Appendix B, 2 Sept. 1971 continued.

SDC. 5-1	39	347.1	3.06 SDC. 5-2	31	252.4	3.04
ACTINASTRUM HANTZSCHII V. FLUVIATILE						
ANABAENA SP.		0.5				0.37
ANKISTRODESMIUS FALCATUS V. MIRABILIS		0.9				0.18
ANKISTRODESMIUS SP.		0.9				0.18
ANKISTRODESMIUS FALCATUS		0.5				0.16
APHANOCAPSA SP.		0.5				0.55
APHANOCAPSA SP.		0.5				1.4
BLUE-GREEN UNKNOWN FILAMENT		0.5				13.5
CERATIUM HIRUNDINELLA		0.9				2.57
CHLAMYDOMONAS SP.		23.2				0.72
CHLAMYDOMONAS SP.		7.9				0.37
CHLAMYDOMONAS SP.		1.4				1.65
COELASTRUM SP.		1.4				4.41
CRUCIGENIA IPAREGULARIS		1.9				0.74
CRUCIGENIA QUADRATA		4.2				1.29
CRUCIGENIA SP.		26.4				1.84
CRYPTOMONAS SP.		1.4				0.92
CYCLOTELLA SP.		3.7				5.15
DINOBRYON DIVERGENS		7.9				50.18
FLAGELLATES		1.4				0.37
FRAGILARIA CAPUCINA		5.6				0.37
FRAGILARIA CROTONENSIS		15.8				1.84
GLENNIUM SP.		169.4				0.18
GLENNIUM SP.		0.5				1.84
GLENNIUM SP.		0.5				0.18
GREEN COLONY, UNKNOWN		0.5				6.25
KIRCHNERIELLA SP.		0.9				0.18
LAGEHNFIMIA SP.		3.7				0.18
HELUSIPA SP.		0.5				0.74
MICROCYSTIS SP.		0.5				0.18
NEPHROCYTUM SP.		0.5				2.39
NITZSCHIA ACICULARIS		0.5				1.47
NITZSCHIA SP.		0.5				0.37
UCHROMONAS SP.		7.4				6.80
OCYCSTIS SP.		11.6				
PERIDIUM SP.		8.8				
SCENEDESMUS HIJUGA		0.5				
SCENEDESMUS SP.		2.3				
SPHAEROCYSTIS SP.		3.7				
TABELLARIA FENESTRATA		27.8				
TETRAEDRON MINIMUM		0.5				
TREUBARIA SP.		0.5				
ANKISTRODESMIUS FALCATUS V. MIRABILIS						
ANKISTRODESMIUS FALCATUS						
ANKISTRODESMIUS SP.						
APHANOCAPSA SP.						
CERATIUM HIRUNDINELLA						
CHLAMYDOMONAS SP.						
CHLAMYDOMONAS SP.						
COELASTRUM SP.						
CRUCIGENIA SP.						
CRUCIGENIA SP.						
CYCLOTELLA SP.						
DINOBRYON DIVERGENS						
FLAGELLATES						
FRAGILARIA CROTONENSIS						
GLENNIUM SP.						
GLENNIUM SP.						
GLENNIUM SP.						
GREEN COLONY, UNKNOWN						
KIRCHNERIELLA SP.						
LAGEHNFIMIA SP.						
HELUSIPA SP.						
MICROCYSTIS SP.						
NEPHROCYTUM SP.						
NITZSCHIA ACICULARIS						
NITZSCHIA SP.						
UCHROMONAS SP.						
OCYCSTIS SP.						
PERIDIUM SP.						
SCENEDESMUS HIJUGA						
SCENEDESMUS SP.						
SPHAEROCYSTIS SP.						
TABELLARIA FENESTRATA						
TETRAEDRON MINIMUM						
TREUBARIA SP.						

**SAC. 5-3**

131

Appendix B, 2 Sept. 1971 continued.

SDC 1-1	27	251.5	2.98	SDC 1-2	24	237.1	2.69
ANARAENA SP.		2.3	0.72	ANARAENA SP.		0.9	0.35
ANKISTRODESMUS FALCATUS V. MIRABILIS		0.9	0.37	ANKISTRODESMUS GELIFACTUS		0.9	0.39
ANKISTRODESMUS GELIFACTUS		0.5	0.18	CERATIUM HIRUNDINELLA		0.9	0.39
APIANIDIACE SP.		0.5	0.18	CHLAMYDOMONAS SP.		5.1	2.15
CHLAMYDOMONAS SP.		5.1	2.03	CIPROGICUS SP.		13.9	5.67
CHLAMYDOMONAS SP.		5.1	2.03	COELASTRUM SP.		0.5	0.20
CHLAMYDOMONAS SP.		0.9	0.37	COSMARION SP.		0.5	0.20
CHLAMYDOMONAS SP.		9.3	3.69	CRUCIGENIA QUADRATA		2.8	1.17
CHLAMYDOMONAS SP.		13.0	5.17	CRUCIGENIA SP.		6.0	2.54
CHLAMYDOMONAS SP.		0.5	0.18	CRYPTOMONAS SP.		3.7	1.57
CYCLotella SP.		2.8	1.11	CYCLotella SP.		0.5	0.20
DIMORPHUM DIVERGENS		1.9	0.74	DIMORPHUM DIVERGENS		7.4	3.13
FLAGELLATES		0.9	0.37	FLAGELLATES		2.8	1.17
FRAGILARIA CRYPTOMONENSIS		14.4	5.72	FRAGILARIA CRYPTOMONENSIS		0.5	0.20
GLENODINIUM SP.		117.4	46.66	GLENODINIUM SP.		12.5	5.28
GLENOCYSTIS SP.		0.9	0.37	GLENOCYSTIS SP.		125.7	53.03
LACTINIMIA SP.		1.4	0.55	KIRCHNERIFILIA SP.		0.5	0.20
PELUSIA SP.		2.3	0.92	LACTINIMIA SP.		0.9	0.39
CHLAMYDOMONAS SP.		0.5	0.18	PELUSIA SP.		3.7	1.57
CERODINIUM SP.		15.8	6.27	PELUSIA SP.		12.5	5.28
COCYSTIS SP.		11.1	4.43	PERIDINIUM SP.		1.4	0.59
PERIDINIUM SP.		0.9	0.37	SCENEDSMUS SP.		0.5	0.20
SCENEDSMUS DIMORPHUS		1.4	0.55	SCENEDSMUS SP.		27.8	11.74
SCENEDSMUS QUADRICAUDA		1.4	0.55	SPHAEROCYSTIS SP.		5.1	2.15
SCENEDSMUS SP.		9.3	3.69	TABELLARIA FENESTRATA			
SPHAEROCYSTIS SP.		30.6	12.13				
TABELLARIA FENESTRATA		0.5	0.18				
TETRAEDRON MINIMUM							



Appendix B, 2 Sept. 1971 continued.

SDC 1-3	33	309.5	2.50	SDC 2-0	25	307.5	3.14
ANAGAEA SP.		0.9	0.30	ANAGAEA SP.		0.9	0.24
ANKISTIFIDESMUS FALCATUS V. MIRABILIS		1.4	0.45	ANKISTIFIDESMUS FALCATUS V. MIRABILIS		0.9	0.24
ANKISTIFIDESMUS GELIFACTUS		2.3	0.75	ANKISTIFIDESMUS SP.		0.9	0.24
APHANOCAPSA SP.		0.5	0.15	APHANOCAPSA SP.		0.9	0.24
CERATIUM HIRUNDINELLA		0.5	0.15	CHLAMYDOMONAS SP.		4.6	1.20
CHLAMYDOMONAS SP.		3.2	1.35	CHLAMYDOMONAS SP.		5.6	1.44
CHLAMYDOMONAS SP.		13.0	4.20	COSMIATUM SP.		1.9	0.48
COELASTRUM SP.		0.5	0.15	CRUCIGENTIA QUADRATA		0.9	0.24
COSMIATUM SP.		0.5	0.15	CRUCIGENTIA SP.		2.8	0.72
CRUCIGENTIA APICULATA		1.4	0.45	CRYPTOMONAS SP.		27.0	7.18
CRUCIGENTIA QUADRATA		0.5	0.15	DINOBRYON DIVERGENS		11.1	2.87
CRUCIGENTIA SP.		2.8	0.90	FLAGELLATES		13.9	3.59
CRYPTOMONAS SP.		10.2	3.30	FRAGILARIA CAPUCINA		1.9	0.48
CYCLotella SP.		0.9	0.30	FRAGILARIA CRUTONENSIS		8.3	2.15
DINOBRYON DIVERGENS		2.8	0.90	GLENNINIUM SP.		29.7	7.66
FLAGELLATES		0.9	0.30	GLENNINIUM SP.		150.2	38.76
FRAGILARIA CAPUCINA		0.5	0.15	KIPCHENIELLA SP.		1.9	0.48
FRAGILARIA CRUTONENSIS		4.2	1.35	MELUSINA SP.		1.9	0.48
FRAGILARIA SP.		0.5	0.15	NOCHROMONAS SP.		6.5	1.67
FRANCETA SP.		0.5	0.15	LUCYSTIS SP.		21.3	5.50
GLENNINIUM SP.		16.7	5.40	PEDIASTRUM DUPLEX		0.9	0.24
GLENNINIUM SP.		187.0	60.42	PERIDIUM SP.		19.5	5.02
GREEN COLONY, UNKNOWN		0.5	0.15	SCYPHODESMUS SP.		3.7	0.96
LACHNETHIA SP.		5.1	1.65	SPHATROCYSTIS SP.		5.6	1.44
MITZSCHIA SP.		0.5	0.15	TABELLARIA FINESTRATA		64.0	16.51
NOCHROMONAS SP.		6.0	1.95				
NOCHROMONAS SP.		30.6	9.50				
PENIUM SP.		0.9	0.30				
PERIDIUM SP.		3.7	1.20				
SCYPHODESMUS SP.		0.9	0.30				
SPHATROCYSTIS SP.		3.7	1.20				
TABELLARIA FINESTRATA		4.6	1.50				
TRIPLEORON MINIMUM		1.4	0.45				

Appendix B, 2 Sept. 1971 continued.

SDC 2-1	29	245.9	3.26	SDC 2-2	32	284.9	2.95
ANABALNA SP.		0.9	0.30	ANABALNA SP.		0.5	0.16
ANKISTROPSMUS FALCATUS V. MIRABILIS		0.7	0.36	ANKISTROPSMUS FALCATUS		0.5	0.16
ANKISTROPSMUS GELIFACTUS		1.4	0.57	ANKISTROPSMUS GELIFACTUS		2.6	0.98
APICINOTICE SP.		0.9	0.38	ANKISTROPSMUS SP.		0.5	0.16
AST-PIFFELLA FORMOSA		0.5	0.19	ASTERIUMELLA FORMOSA		0.5	0.16
CHLAMYDOMYXAS SP.		9.3	3.77	BLUE-GREEN UNKNOWN FILAMENT		0.5	0.16
CHLAMYDOCYCUS SP.		11.6	4.72	CEPATUM HIPHIDINELLA		0.5	0.16
CITLSTUM SP.		0.5	0.19	CHLAMYDOMYXAS SP.		10.2	3.54
CRUCIGENTIA APICULATA		0.9	0.38	CHLAMYDOCYCUS SP.		13.0	4.56
CRUCIGENTIA RECTANGULARIS		0.9	0.38	CITLSTUM SP.		0.5	0.16
CRUCIGENTIA SP.		0.5	0.19	CUSHARIUM SP.		0.5	0.16
CRYPTOMYXAS SP.		12.1	4.91	CRUCIGENTIA QUADRATA		0.5	0.16
DINURRYON DIVERGENS		5.6	2.26	CRUCIGENTIA SP.		4.2	1.47
FLAGELLATES		0.5	0.19	CRYPTOMYXAS SP.		11.6	4.07
FRAGILARIA CAPUCINA		2.8	1.13	CYCLUTELLA SP.		0.9	0.33
FRAGILARIA CRUTONENSIS		22.3	9.06	DINURRYON DIVERGENS		2.3	0.81
GLENODITUM SP.		13.9	5.66	FLAGELLATES		4.2	1.47
GLENOCYSTIS SP.		100.7	40.44	FRAGILARIA CRUTONENSIS		0.9	0.33
GLENOCYSTIS SP.		0.9	0.38	GLENODITUM SP.		37.6	13.19
LACHNENTIA SP.		0.5	0.19	GLENOCYSTIS SP.		136.4	47.44
MITZSCHIA ACICULARIS		0.5	0.19	KITCHINELLIA SP.		0.5	0.16
MITZSCHIA SP.		5.1	2.08	LAGEHENTIA SP.		3.7	1.30
UCHROMYXAS SP.		17.6	7.17	KITZSCHIA SP.		0.5	0.16
UCYCSTIS SP.		10.2	4.15	UCHROMYXAS SP.		9.7	3.42
PERIDINIUM SP.		0.5	0.19	UCYCSTIS SP.		16.2	5.70
SCENEDSMUS DIJUGA		4.2	1.70	OSCILLATORIA SP.		0.5	0.16
SCENEDSMUS SP.		3.7	1.51	PERIDINIUM SP.		2.3	0.81
SPHAEROCYSTIS SP.		16.2	6.60	SCENEDSMUS QUADRICAUDA		0.5	0.16
TACEILARIA FENESTRATA		0.5	0.19	SCENEDSMUS SP.		2.8	0.94
TETRAEDRON MINIMUM				SPHAEROCYSTIS SP.		14.8	5.21
				TACEILARIA FENESTRATA		4.6	1.63
				TETRAEDRON MINIMUM		0.5	0.16

**Appendix B, 2 Sept. 1971 continued.**

SDC 2-4	36	421.3	2.49
ANABAENA SP.		5.1	1.21
ANKISTRODES MUS FALCATUS V. MIRABILIS		0.9	0.22
ANKISTRODES MUS FALCATUS		0.9	0.22
ANKISTRODES MUS GELIFACTUS		1.9	0.44
APHROTHERCE SP.		4.2	0.99
CERATIUM HIPPODIMELLA		1.4	0.33
CHLAMYDOMONAS SP.		6.0	1.43
CHROOCoccus SP.		28.3	6.72
COELASTRUM SP.		0.5	0.11
COSMARION SP.		0.9	0.22
CRUCIGENIA QUADRATA		2.3	0.55
CRUCIGENIA RECTANGULARIS		3.7	0.88
CRUCIGENIA SP.		0.5	0.11
CRYPTOMONAS SP.		20.9	6.39
CYCLOTELLA SP.		0.5	0.11
DINJOYON DIVERGENS		7.9	1.87
FLAGELLATES		1.4	0.33
FRAGILARIA CAPICINA		2.3	0.55
FRAGILARIA CROTONENSIS		0.5	0.11
FRAGILARIA SP.		0.5	0.11
FRANCLETA DRUESCHERI		0.5	0.11
GLENODINIUM SP.		2.3	0.55
GLECCYSTIS SP.		207.4	49.23
GREEN COLONY, UNKNOWN		0.9	0.22
KIRCHNEPIELLA SP.		0.9	0.22
LACHNEPIELLA SP.		6.0	1.43
MICROCYSTIS SP.		0.5	0.11
NITZSCHIA SP.		0.5	0.11
OCHRIMONAS SP.		22.3	5.29
CUCYSTIS SP.		53.8	12.78
PENIDINIUM SP.		0.9	0.22
SCENEDESMUS DIMORPHUS		0.5	0.11
SCENEDESMUS SP.		1.9	0.44
Sphaerocystis SP.		16.7	3.96
TABELLARIA FENESTRATA		9.3	2.20
TETRAEDRON MINIMUM		0.5	0.11
SDC 4-5	28	1103.7	3.31
ANABAENA SP.		20.4	1.35
APHROTHERCE SP.		1.9	0.17
CERATIUM HIPPODIMELLA		1.9	0.17
CHLAMYDOMONAS SP.		7.4	0.67
CHROOCoccus SP.		7.4	0.67
COELASTRUM SP.		1.9	0.17
CRUCIGENIA QUADRATA		1.9	0.17
CRUCIGENIA SP.		3.7	0.34
CRYPTOMONAS SP.		44.5	4.33
CYCLOTELLA SP.		11.1	1.01
SDC 4-1	30	200.3	3.08
ANABAENA SP.		0.4	0.21
ANKISTRODES MUS FALCATUS V. MIRABILIS		1.7	0.34
ANKISTRODES MUS FALCATUS		0.4	0.21
ANKISTRODES MUS GELIFACTUS		0.4	0.21
CERATIUM HIPPODIMELLA		0.4	0.21
CHLAMYDOMONAS SP.		1.7	0.34
CHROOCoccus SP.		12.6	6.24
COELASTRUM SP.		0.4	0.21
CRUCIGENIA SP.		4.6	2.31
CRYPTOMONAS SP.		9.2	4.61
CYCLOTELLA SP.		0.8	0.42
DICTYOSPHEREIUM SP.		0.4	0.21
DINJOYON DIVERGENS		1.7	0.84
FLAGELLATES		1.3	0.63
FRAGILARIA CROTONENSIS		3.8	1.89
GLENODINIUM SP.		10.1	5.03
GLECCYSTIS SP.		94.1	46.96
GOPHIOSPHAERIA SP.		0.4	0.21
KIRCHNEPIELLA SP.		1.3	0.63
MEIOSIRA SP.		0.8	0.42
NAVICULA SP.		0.8	0.42
NEPHROCYTUM SP.		0.4	0.21
NITZSCHIA SP.		0.4	0.21
OCHRIMONAS SP.		6.7	3.35
UCCYSTIS SP.		20.6	10.27
PEPIDIDIUM SP.		10.1	5.03
SCENEDESMUS SP.		5.9	2.94
Sphaerocystis SP.		3.4	1.68
TABELLARIA FENESTRATA		4.2	2.10
TETRAEDRON MINIMUM		1.1	0.54

Appendix B, 2 Sept. 1971 continued.

SJC 4-2	31	280.7	2.91	SJC 4-1	31	323.9	2.99
ACTINASTRUM HANTZSCHII V. FLUVIATILE				ANKISTRODES MUS FALCATUS V. MIRABILIS			
ALBAENA SP.		0.5	0.17	ANKISTRODES MUS GELIFACTUS		0.5	0.14
ANKISTRODES MUS FALCATUS V. MIRABILIS		1.9	0.66	APHANOCARPA SP.		1.9	0.57
ANKISTRODES MUS GELIFACTUS		0.5	0.17	APHANOTHECE SP.		0.9	0.23
APHANOTHECE SP.		1.9	0.66	CHILANYODONAS SP.		0.5	0.14
CHLOCCOCUS SP.		0.9	0.33	CHLOCCOCUS SP.		8.8	2.72
CHLOCCOCUS SP.		13.5	4.79	COSMARTUM SP.		25.1	7.74
COSMARTUM SP.		0.9	0.33	CRUCIGENTIA APICULATA		2.3	0.72
CRUCIGENTIA SP.		1.9	0.66	CRUCIGENTIA QUADRATA		0.9	0.29
CRYPTODONAS SP.		10.2	3.64	CRUCIGENTIA SP.		1.4	0.43
CYCLOTELLA SP.		2.3	0.83	CRYPTODONAS SP.		1.4	0.43
DINDOPYON DIVERGENS		5.1	1.02	CYCLOTELLA SP.		18.6	5.73
DINDOPYON PEDIFORME		0.5	0.17	DINDOPYON DIVERGENS		0.5	0.14
FLAGELLATES		4.2	1.49	FLAGELLATES		2.8	0.86
FRAGILARIA CAPUCINA		0.9	0.33	FRAGILARIA CAPUCINA		0.9	0.29
FRAGILARIA CRUTONENSIS		2.3	0.83	GLENODINIUM SP.		0.9	0.23
FRAGILARIA SP.		1.4	0.50	GLENOCYSTIS SP.		9.3	2.87
GLENODINIUM SP.		24.8	8.76	GREEN COLUMB, UNKNOWN		172.1	53.15
GLENOCYSTIS SP.		140.1	49.92	KIRCHHEPPIELLA SP.		0.5	0.14
KIRCHHEPPIELLA SP.		0.5	0.17	LAGEHEPPIA SP.		0.9	0.29
LAGEHEPPIA SP.		1.4	0.50	NEPHROCYSTIS SP.		3.2	1.00
PELUSIRA SP.		0.9	0.33	NEPHROCYSTIS SP.		0.5	0.14
PELUSIRA SP.		7.4	2.64	NITZSCHIA SP.		0.9	0.29
PELUSIRA SP.		24.1	8.60	OCCHRONAS SP.		3.7	1.15
OCCHRONAS SP.		0.5	0.17	OCYSTIS SP.		37.6	11.00
OSCILLATOPIA SP.		3.2	1.16	PALUDICINA SP.		0.5	0.14
PLEKIDINIUM SP.		4.2	1.49	PLEKIDINIUM DUPLEX		0.9	0.29
SCENESMUS SP.		20.4	7.27	PEPIDINIUM SP.		1.4	0.43
SPHAEROCYSTIS SP.		2.8	0.99	SPHAEROCYSTIS SP.		1.4	0.43
TABELLARIA FENESTRATA		0.9	0.33	TABELLARIA FENESTRATA		7.4	2.29
TETRAEDRUM CAUDATUM		0.5	0.17	TETRAEDRUM MINIMUM		15.8	4.87
TETRAEDRUM MINIMUM		0.5	0.17	TETRAEDRUM MINIMUM		0.5	0.14

Appendix B, 2 Sept. 1971 continued.

SDC 4-4	26	209.3	2.38	SDC 7-1	27	495.1	2.48
ANARAENA SP.		0.9	0.44	ANARAENA SP.		0.5	0.09
ANKISTRODESMUS GELIFACTUS		0.9	0.44	ANKISTRODESMUS GELIFACTUS		0.9	0.19
APIANUCAPSA SP.		0.9	0.44	ANKISTRODESMUS SP.		0.5	0.09
APHANOTILCE SP.		0.5	0.22	APHANOTILCE SP.		0.9	0.19
ASTERIGMELLA FURNOSA		0.5	0.22	BLUE-GREEN UNKNOWN FILAMENT		0.5	0.09
CEKATIUM HIRUNTINGELLA		0.5	0.22	CHLAPHYDOMONAS SP.		3.2	0.66
CHLAPHYDOMONAS SP.		1.9	0.89	CHROCOCCUS SP.		14.8	3.03
CHROCOCCUS SP.		22.7	10.86	CLOSTERIUM SP.		0.5	0.09
COELASTRUM SP.		1.4	0.67	COELASTRUM SP.		1.4	0.23
COSMARIUM SP.		0.5	0.22	COSMARIUM SP.		1.9	0.37
CRUCIGENIA QUADRATA		0.5	0.22	CRUCIGENIA RECTANGULARIS		1.9	0.37
CRUCIGENIA RECTANGULARIS		6.0	2.08	CRUCIGENIA SP.		5.1	1.03
CRUCIGENIA SP.		0.5	0.22	CRYPTOMONAS SP.		25.1	5.06
CRYPTOMONAS SP.		4.6	2.22	CYCLOTILLA SP.		0.9	0.19
CYCLOTILLA SP.		3.2	1.55	DINORPYUM DIVERGENS		4.2	0.44
DINORPYUM DIVERGENS		3.2	1.55	FLAGELLATES		7.4	1.50
GLENODINIUM SP.		4.2	2.00	GLENODINIUM SP.		16.2	3.28
GLOECOCYSTIS SP.		121.1	57.87	GLOECOCYSTIS SP.		204.6	41.33
GLOPHINFA SP.		0.5	0.22	GREEN COLONY, UNKNOWN		0.5	0.09
GREEN COLONY, UNKNOWN		0.5	0.22	LAGERHEIMIA SP.		2.3	0.47
KIRCHNERIELLA SP.		0.5	0.22	MICROCOCYSTIS SP.		116.0	23.43
LAGERHEIMIA SP.		2.8	1.33	OCCHROMONAS SP.		8.8	1.78
OCCHROMONAS SP.		0.9	0.44	OOCYSTIS SP.		27.8	5.62
OOCYSTIS SP.		26.0	12.42	PEPIDIUM SP.		17.6	3.56
SPHAEROCYSTIS SP.		3.7	1.77	SCENIODESMUS SP.		3.2	0.66
TABELLARIA FENESTRATA		0.5	0.22	SPHAEROCYSTIS SP.		18.6	3.75
				TABELLARIA FENESTRATA		9.7	1.97

Appendix B, 2 Sept. 1971 continued.

SOC 7-2	26	194.4	3.03	SOC 7-3	30	203.1	2.72
ACTINASTRUM HANTZSCHII V. FLUVIATILE				ANABAEIA SP.			
ANABAEIA SP.				ANKISTRODESNIUS FALCATUS V. MIRABILIS	1.4		0.53
ANKISTRODESNIUS FALCATUS V. MIRABILIS				ANKISTRODESNIUS FALCATUS	0.5		0.18
ANKISTRODESNIUS GELIFACTUS				ANKISTRODESNIUS SP.	0.9		0.35
APHANUCAPSA SP.				APPANOTHICE SP.	0.9		0.35
APPANOTHICE SP.				CILIATUM HIRUDINELLA	1.4		0.53
CILIARYNOMONAS SP.				CHILARYNOMONAS SP.	20.4		7.70
CHILARYNOMONAS SP.				CHLOCHOCUS SP.	0.5		0.18
CHLOCHOCUS SP.				COSIATUM SP.	1.9		0.71
COSIATUM SP.				CRUCIGENTIA SP.	1.9		0.71
CRUCIGENTIA SP.				CRYPTONOMAS SP.	16.2		6.17
CRYPTONOMAS SP.				CYLOTILLA SP.	0.5		0.18
CYLOTILLA SP.				DINOMYON DIVERGENS	2.8		1.06
DINOMYON DIVERGENS				FLAGELLATES	1.4		0.53
FLAGELLATES				FLAGELLARIA CAPUCINA	0.9		0.35
FLAGELLARIA CAPUCINA				GLENODINTUM SP.	6.0		2.79
GLENODINTUM SP.				GLENOCYSTIS SP.	124.8		47.44
GLENOCYSTIS SP.				GREEN COLONY, UNKNOWN	0.5		0.13
GREEN COLONY, UNKNOWN				KIRCHNERELLA SP.	1.4		0.53
KIRCHNERELLA SP.				LAGEHRETTIA SP.	5.6		2.12
LAGEHRETTIA SP.				LAGOCHLORIS SP.	2.9		1.36
LAGOCHLORIS SP.				LEUCODONTUM SP.	0.5		0.18
LEUCODONTUM SP.				LOCYSTIS SP.	27.0		10.59
LOCYSTIS SP.				PEPIDINIUM SP.	0.9		0.35
PEPIDINIUM SP.				SCENEDUSNIUS QUADRICAUDA	0.5		0.18
SCENEDUSNIUS QUADRICAUDA				SCENEDUSNIUS SP.	5.1		1.74
SCENEDUSNIUS SP.				SPHAEROCYSTIS SP.	23.2		8.32
SPHAEROCYSTIS SP.				TABELLARIA FINESTRATA	9.7		3.70
TABELLARIA FINESTRATA				TETRACONTUM MINIMUM	0.5		0.18

SDC 7-4	27	223.6	2.54	SDC 7-5	20	187.9	2.91
ANKISTRODESMIUS FALCATUS V. MIRABILIS		0.9	0.41	ANAMIELA SP.		3.2	1.73
ANKISTRODESMIUS SP.		1.4	0.62	APHANOCAPSA SP.		0.5	0.25
APHANOTHECE SP.		0.5	0.21	CERATIUM HIRUNDINELLA		1.4	0.74
BLUE-GREEN UNKOWN FILAMENT		0.5	0.21	CHLAFYLOMONAS SP.		5.6	2.96
CERATIUM HIRUNDINELLA		0.5	0.21	CHLAFYLOMONAS SP.		20.4	10.36
CHLAFYLOMONAS SP.		5.1	2.28	CUSMARIUM SP.		1.9	0.79
CHLAFYLOMONAS SP.		7.9	3.53	CRUCIOTENIA SP.		0.9	0.49
COELASTRUM SP.		0.9	0.41	CRYPTOTENIAS SP.		18.1	9.63
CRUCIOTENIA SP.		6.5	2.90	CYCLITELLA SP.		2.8	1.48
CRYPTOTENIAS SP.		14.4	6.43	DIREKAYODIVERGENS		9.7	5.19
DIREKAYODIVERGENS		0.5	0.21	GLENODITUM SP.		3.7	1.73
FLAGELLATES		4.2	1.87	GLENODITUM SP.		80.7	42.36
FRAGILARIA CROTUNENSIS		2.3	1.04	GLOPHOCYSTIS SP.		0.9	0.49
GLENODITUM SP.		4.2	1.87	KLEPHOCYSTIS SP.		2.3	1.23
GLOPHOCYSTIS SP.		106.7	47.72	LAGEPHOCYSTIS SP.		10.2	5.43
KLEPHOCYSTIS SP.		0.5	0.21	LOPHODITUM SP.		71.8	11.80
KLEPHOCYSTIS SP.		5.1	2.28	NEOCYSTIS SP.		0.9	0.49
LAGEPHOCYSTIS SP.		0.9	0.41	SELFRASTRUM SP.		0.5	0.25
NELOSTIRA SP.		0.9	0.41	SPHACROCYSTIS SP.		1.9	0.99
NITZSCHIA SP.		5.1	2.28	TABELLARIA FRETSTRATA		0.9	0.49
LOPHODITUM SP.				TETRAEDRUM MINIMUM			





1-57-1

141

Appendix B, 8 Nov. 1971 continued.

MDC.5-3	35	301.1	3.64	NDC 1-1	36	292.9	3.95
ANABAENA SP.		0.5	0.15	AMPHURA SP.		4.6	1.98
ANKISTRODESMUS FALCATUS		0.9	0.31	ANKISTRODESMUS SP.		0.9	0.32
ANKISTRODESMUS GELIFACTUS		0.9	0.31	APHANUCAPSA SP.		1.9	0.63
ANKISTRODESMUS SP.		0.5	0.15	APHANOTHECE SP.		6.5	2.22
APHANOTHECE SP.		16.7	5.55	ASTERIONELLA FORMOSA		0.9	0.32
ASTERIONELLA FORMOSA		1.9	0.62	CALONETS SP.		0.9	0.32
BLUE-GREEN UNKNOWN FILAMENT		0.5	0.15	CHLAMYDOMONAS SP.		29.7	10.13
CERATIUM HIRUNDINELLA		0.5	0.15	CHROOCOCCLUS SP.		15.8	5.38
CHLAMYDOMONAS SP.		28.8	9.55	CLUSTERIOPSIS LONGISSIMA		2.8	0.95
CHROOCOCCLUS SP.		17.2	5.70	CLOSTERIUM ACIRCULARE		0.9	0.32
CLOSTERIOPSIS LONGISSIMA		0.5	0.15	CRUCIGENIA IRREGULARIS		0.9	0.32
CLOSTERIUM ACIRCULARE		0.5	0.15	CRYPTOMONAS SP.		22.2	7.60
CLOSTERIUM SP.		0.5	0.15	CYCLOTELLA SP.		0.9	0.32
CLOSTRIUM SP.		0.5	0.15	DESMIDI		1.9	0.63
COSMARIUM SP.		1.4	0.46	DIATOM, UNKNOWN		0.9	0.32
CRUCIGENIA SP.		2.3	0.77	DICTYOSPHAERIUM SP.		0.9	0.32
CRYPTOMONAS SP.		23.7	7.86	DINOMYXON DIVERGENS		10.2	3.48
CYCLOTELLA SP.		2.3	0.77	FRAGILARIA CRUTINENSIS		12.1	4.11
DIATOM, UNKNOWN		3.7	1.23	FRAGILARIA PINNATA		1.9	0.63
DICTYOSPHAERIUM SP.		0.5	0.15	FRAGILARIA SP.		2.8	0.95
DINOMYXON DIVERGENS		10.2	3.39	GLERODINIUM SP.		0.9	0.32
FRAGILARIA CHOTONENSIS		8.4	2.77	GLUEICYSTIS SP.		36.2	12.34
FRAGILARIA SP.		1.4	0.46	GUMPHOSPHAERIA SP.		0.9	0.32
GLERODINIUM SP.		0.5	0.15	MELUSINA ISLANDICA		2.8	0.95
GLUEICYSTIS SP.		28.8	9.55	MELUSINA ISLANDICA AUXOSPORES		0.9	0.32
MELUSINA SP.		2.8	0.92	MELUSINA SP.		5.6	1.90
NITZSCHIA ACICULARIS		1.9	0.62	NAVICULA SP.		0.9	0.32
INCHROMONAS SP.		15.4	20.35	NITZSCHIA ACICULARIS		0.9	0.32
INCYSTIS SP.		17.6	5.86	OCCHROMONAS SP.		44.5	15.19
PENIUM SP.		0.5	0.15	INDICYSTIS SP.		9.3	3.16
SCENEDESMUS SP.		2.3	0.77	PENIUM SP.		1.9	0.63
SPHAEROCYSTIS SP.		7.4	2.47	SCENEDESMUS DIMORPHUS		0.9	0.32
TABELLARIA FENESTRATA		28.8	9.55	SCENEDESMUS SP.		5.6	1.90
TETRAEDRUM CAUDATUM		0.5	0.15	SPIAEROCYSTIS SP.		7.4	2.53
TETRAEDRUM MINIMUM		0.9	0.31	TABELLARIA FENESTRATA		52.8	18.04
				TETRAEDRUM MINIMUM		1.9	0.63



Appendix B, 8 Nov. 1971 continued.

NIC 2-2	34	232.0	3.84	NIC 2-3	26	276.5	3.35
AMPHINA SP.				ANABAENA SP.			0.17
ANABAENA SP.		0.5	0.20	ANKISTRODESCHUS FALCATUS V. MIRABILIS		0.5	0.17
ANKISTRODESCHUS FALCATUS V. MIRABILIS		0.5	0.20	ANKISTRODESCHUS GELIFACTUS		0.5	0.17
ANKISTRODESCHUS GELIFACTUS		0.5	0.20	ANKISTRODESCHUS SP.		0.5	0.17
APHANOTHECE SP.		19.5	8.40	APIAUCAPSIA SP.		1.4	0.50
ASTEATUNELLA FORMOSA		0.9	0.40	APHANOTHECE SP.		18.1	6.54
BLUE-GREEN UNKNOWN FILAMENT		0.5	0.20	ASTEATUNELLA FORMOSA		0.9	0.34
CHLAMYDOMONAS SP.		7.4	3.20	CHLAMYDOMONAS SP.		31.1	11.24
CHROMOCYCCLUS SP.		24.1	10.40	CHROMOCYCCLUS SP.		20.9	7.55
CLOSTETIUM ACICULARE		0.5	0.20	CLOSTETIUM SP.		0.5	0.17
COELASTRUM SP.		1.4	0.60	COSMARTIUM SP.		1.4	0.50
COELUSPHAERIUM SP.		1.9	0.80	CRYPTOMONAS SP.		22.3	8.05
COSMARTIUM SP.		0.9	0.40	CYCLITELLA SP.		2.3	0.84
CRUCIGENTIA QUADRATA		0.5	0.20	DINUMKYON DIVERGENS		8.8	3.19
CRYPTOMONAS SP.		22.3	9.60	FRAGILARIA SP.		8.8	3.19
CYNATUPTLEURA SULEA		3.2	1.40	GLUECYSTIS SP.		34.3	12.42
DINUMKYON DIVERGENS		0.5	0.20	GOMPHUSPHAERIA SP.		1.9	0.67
FRAGILARIA CRUTONENSIS		14.8	6.40	GREEN COLONY, UNKNOWN		0.5	0.17
GLUECYSTIS SP.		8.8	3.80	ICHNOMONAS SP.		80.7	29.19
GOMPHUSPHAERIA SP.		20.3	12.20	GLUECYSTIS SP.		10.7	3.86
GREEN COLONY, UNKNOWN		4.2	1.80	SCENEDUSCHUS SP.		3.2	1.17
LABENHEITIA SP.		1.9	0.80	STAUCASTRUM SP.		0.9	0.34
MELOSIRA SP.		0.5	0.20	SYNEURA SP.		0.5	0.17
NITZSCHIA ACICULARIS		1.4	0.60	SYNEURA ULNA		0.5	0.17
ICHNOMONAS SP.		0.9	0.40	TABELLARIA FENESTRATA		24.1	8.72
GLUECYSTIS SP.		33.9	14.80	TETRAEDRON MINIMUM		0.9	0.34
PENIUM SP.		14.4	6.20				
SCENEDUSCHUS SP.		0.9	0.40				
SPHAEROCYSTIS SP.		2.3	1.00				
STEPHANODISCUS SP.		1.9	0.80				
SYNEURA ULNA		0.5	0.20				
TABELLARIA FENESTRATA		30.6	13.20				
TETRAEDRON MINIMUM		0.9	0.40				

Appendix B, 8 Nov. 1971 continued.

NDC 2-4	22	253.8	2.91	NDC 4-9	26	350.6	3.90
AMPHIPLEURA SP.		0.5	0.18	AMPHILEURA SP.		1.9	0.53
ANKISTRUMESMUS GELIFACTUS		0.9	0.37	ANABATRA SP.		1.9	0.53
APHANITHECE SP.		16.7	6.58	ANKISTRUMESMUS FALCATUS V. MIRABILIS		7.4	2.12
CHLAMYDOMONAS SP.		48.3	19.01	ANKISTRUMESMUS GELIFACTUS		3.7	1.06
CHROOCUCCUS SP.		9.7	3.84	APHANITHECE SP.		1.9	0.53
CLOSTERIUM ACIRCULARE		0.5	0.18	CHLAMYDOMONAS SP.		39.0	11.11
CLOSTRIDIUM SP.		0.5	0.18	CHELYDOMONAS SP.		20.4	5.82
CUSMARIUM SP.		0.5	0.18	CHROOCUCCUS SP.		26.0	7.41
CRUCIGENTIA QUADRATA		0.5	0.18	CHELYDOMONAS SP.		1.9	0.53
CRYPTOMONAS SP.		21.8	8.59	CUSMARIUM SP.		3.7	1.06
CYCLITELLA SP.		1.4	0.55	CRUCIGENTIA QUADRATA		13.0	3.70
DIMORPHUM DIVERGENS		3.7	1.46	CRYPTOMONAS SP.		26.0	7.41
FRAGILARIA SP.		1.9	0.73	CYCLITELLA SP.		3.7	1.06
GLUEUCYSTIS SP.		23.7	9.32	DIMORPHUM DIVERGENS		18.5	5.29
GUMPHUSPHAERIA SP.		1.9	0.73	FRAGILARIA CRUTONENSIS		16.7	4.76
GREEN COLONY, UNKNOWN		0.5	0.18	GLUEUCYSTIS SP.		13.0	3.70
NAVICULA SP.		0.5	0.18	GUMPHUSPHAERIA SP.		1.9	0.53
UCHROMONAS SP.		96.0	37.84	NAVICULA SP.		3.7	1.06
UCCYSTIS SP.		12.1	4.75	UCHROMONAS SP.		59.4	16.93
SCENEDESIMUS SP.		0.5	0.18	UEDOJONTUM SP.		1.9	0.53
SPHAERUCYSTIS SP.		7.4	2.93	UCCYSTIS SP.		18.5	5.29
TABELLARIA FENESTRATA		4.6	1.83	SCENEDESIMUS DIMORPHUS		1.9	0.53
				SCENEDESIMUS SP.		1.9	0.53
				SPHAERUCYSTIS SP.		7.4	2.12
				TABELLARIA FENESTRATA		51.9	14.81
				TETRAEDRUM MINIMUM		3.7	1.06

Appendix B, 8 Nov. 1971 continued.

huc 4-1	21	343.2	3.61	NOC 4-2	21	134.1	9.43'
ANKISTRUDESCHUS GELIFACTUS							
APIANOCAPSA SP.	1.9	0.54	0.54	AMPHIPLEURA SP.		0.5	0.35
APIANOTHECE SP.	1.9	0.54	0.54	AMPHURA SP.		0.5	0.35
ASTERIUMELLA FORMOSA	39.0	11.35	11.35	ANABAENA SP.		0.5	0.35
CHLAMYDOMONAS SP.	1.9	0.54	0.54	ANKISTRUDESCHUS GELIFACTUS		0.9	0.69
CHLAMYDOMONAS SP.	7.4	2.16	2.16	APIANOTHECE SP.		13.5	10.03
CHLAMYDOMONAS SP.	22.3	6.49	6.49	ASTERTUMELLA FORMOSA		0.5	0.35
CLOSTERIUM ACTICULARE	1.9	0.54	0.54	CERATIUM HIRUNDINELLA		0.5	0.35
COELASTRUM SP.	1.9	0.54	0.54	CHLAMYDOMONAS SP.		3.7	2.77
CRYPTOMONAS SP.	20.4	5.95	5.95	CIRRHOCOCCUS SP.		17.2	12.80
DINOBRYUM DIVERGENS	35.2	10.27	10.27	CUSMARUM SP.		0.5	0.35
FRAGILARIA CANTONENSIS	55.6	16.22	16.22	CRYPTOMONAS SP.		3.7	2.77
GLOEUCYSTIS SP.	24.1	7.03	7.03	DINOBRYUM DIVERGENS		14.8	11.07
GOMPHUSPHAENIA SP.	1.9	0.54	0.54	FRAGILARIA CANTONENSIS		12.1	9.00
LAGERHEIMIA SP.	1.9	0.54	0.54	GLOEUCYSTIS SP.		21.3	15.92
OCCHROMONAS SP.	42.7	12.43	12.43	GOMPHUSPHAENIA SP.		1.4	1.04
OCCHROMONAS SP.	1.9	0.54	0.54	OCCHROMONAS SP.		6.0	4.50
OCCHROMONAS SP.	16.7	4.86	4.86	ODCYSTIS SP.		3.7	2.77
OCYSTIS SP.	1.9	0.54	0.54	SCENEDESMUS DIMORPHUS		0.5	0.35
SCENEDESMUS DIMORPHUS	1.9	0.54	0.54	SCENEDESMUS SP.		1.4	1.04
SCENEDESMUS SP.	1.9	0.54	0.54	SPIAERUCYSTIS SP.		3.7	2.77
SPIAERUCYSTIS SP.	22.3	6.49	6.49	TABELLARIA FENESTRATA		27.4	20.42
TABELLARIA FENESTRATA	39.0	11.35	11.35				

NDC 4-3	31	283.5	3.32	NDC 4-4	28	215.3	3.02
APHORA SP.							
ANKISTRODESMUS FALCATUS	0.5	0.16		ANADAFIA SP.		0.9	0.43
ANKISTRODESMUS GELIFACTUS	0.9	0.33		ANKISTRODESMUS FALCATUS V. MIRABILIS		0.5	0.22
APHANOTHECE SP.	0.5	0.16		APHANOCAPSA SP.		0.5	0.22
ASTERIONELLA FORMOSA	15.3	5.40		APHAUTHECE SP.		4.2	1.94
BLUE-GREEN UNKNOWN FILAMENT	0.5	0.16		ASTERIONELLA FORMOSA		6.5	3.02
CHLAMYDOMONAS SP.	1.9	0.65		CHARTACIUM SP.		0.5	0.22
CHROCOCCUS SP.	19.0	6.71		CHLAMYDOMONAS SP.		98.4	45.69
COELASTRUM SP.	20.9	7.37		CIRRIODICEUS SP.		2.8	1.29
COSMARIUM SP.	2.3	0.82		CLUSTERIOPSIS LONGISSIMA		0.9	0.43
CRUCIGENIA QUADRATA	0.9	0.33		CLUSTERIUM ACICULARE		0.5	0.22
CRUCIGENIA SP.	1.9	0.65		COELASTRUM SP.		0.5	0.22
CRYPTOMONAS SP.	0.5	0.16		CRUCIGENIA QUADRATA		0.5	0.22
CYCLUTELLA SP.	26.9	9.49		CRYPTOMONAS SP.		20.0	9.27
DINOMYXON DIVERGENS	3.2	1.15		CYCLUTELLA SP.		4.2	1.94
FRAGILARIA CRUTINENSIS	10.7	3.76		DITAM, DAKHIA		0.5	0.22
GLENODINIUM SP.	5.1	1.80		DINOMYXON DIVERGENS		0.9	0.43
GLOEUCYSTIS SP.	0.5	0.16		FLAGELLATES		0.5	0.22
GOMPHOSPHERA SP.	26.0	9.17		FRAGILARIA CRUTINENSIS		15.3	7.11
GYROSIGNA SP.	5.1	1.80		GLOEUCYSTIS SP.		18.1	8.41
HELOSIRA ISLANDICA	0.5	0.16		GOMPHOSPHERA SP.		2.8	1.29
HERISMUPEDIA SP.	0.7	0.33		HELOSIRA SP.		7.0	3.23
NITZSCHIA ACICULARIS	0.5	0.16		HELOSIRA SP.		13.9	6.47
OCCHROMONAS SP.	0.5	0.16		HELOSIRA SP.		8.8	4.09
OCYSTITIS SP.	105.3	37.15		HELOSIRA SP.		0.5	0.22
PEDIASTRUM RURYANUM	9.3	3.27		HELOSIRA SP.		2.3	1.08
PENIUM SP.	0.5	0.16		HELOSIRA SP.		0.5	0.22
SCENEDESMUS SP.	0.5	0.16		HELOSIRA SP.		0.5	0.22
SYNEODA SP.	3.2	1.15		HELOSIRA SP.		3.2	1.51
TADLLARIA FENESIRATA	0.5	0.16		HELOSIRA SP.			
TETRASTIRUM MINIMUM	10.6	6.55		HELOSIRA SP.			
	0.9	0.33		HELOSIRA SP.			

Appendix B, 8 Nov. 1971 continued.

SOL. 25-1	27	241-1	J. 84	SUC. 5-2	38	285.8	3.82
ANATSTRUESMUS GELIFACTUS				AMPHORA SP.		0.5	0.16
APHANUCAPSA SP.	3.7		1.54	ANABAENA SP.		0.9	0.32
APHANUTHICE SP.	3.7		1.54	ANKISTRUESMUS FALCATUS V. MIRABILIS		0.9	0.32
CHILANYDUMNAS SP.	19.5		8.07	APHANUCAPSA SP.		0.9	0.32
CHIRUICUCCUS SP.	17.6		7.31	APIANTHICE SP.		9.7	3.41
CUELASTRUM SP.	23.2		9.61	ASTRIONELLA FORMOSA		3.7	1.30
CUELASTRUM SP.	0.9		0.38	CHILANYDUMNAS SP.		25.5	8.93
CUSMANIUM SP.	1.9		0.77	CHIRUICUCCUS SP.		12.5	4.38
CRUCIGENTIA QUADRATA	0.9		0.38	CUELASTRUM SP.		1.4	0.49
CRYPTUMNAS SP.	20.4		8.46	CUELOSPHAERIUM SP.		1.4	0.49
CYCLUTELLA SP.	1.9		0.77	CUSMANIUM SP.		0.5	0.16
DINDRYUM DIVERGENS	13.0		5.38	CRUCIGENTIA QUADRATA		2.3	0.81
FRAGILARIA SP.	13.9		5.77	CRUCIGENTIA SP.		0.5	0.16
GLUEUCYSTIS SP.	26.0		10.77	CRYPTUMNAS SP.		24.1	8.44
GUMPHUSPHERIA SP.	3.7		1.54	CYCLUTELLA SP.		5.1	1.79
KIRCHNERIELLA SP.	0.9		0.38	DINDRYUM DIVERGENS		13.9	4.87
MELUSIRA SP.	1.9		0.77	FRAGILARIA CRUICUENSIS		33.4	11.69
MERISMOPEDIA SP.	2.8		1.15	FRAGILARIA INTERMEDIA V. FALLAX		0.9	0.32
UCHKUMNAS SP.	0.9		0.38	GLUEUCYSTIS SP.		19.5	6.82
ODUCYSTIS SP.	13.9		5.77	GUMPHUSPHERIA SP.		0.9	0.32
PENTUM SP.	20.4		8.46	GREEN SOLITARY, UNKNOWN		0.9	0.32
SCENEDESMUS SP.	0.9		0.38	LAGRUEIMIA SP.		0.5	0.16
SCHRIEDERIA SP.	0.9		0.38	MELUSIRA SP.		3.7	1.30
SPHAEROCYSTIS SP.	1.9		0.80	NAVICULA RADIOSA		0.5	0.16
SYNEDNA SP.	0.9		0.38	NITZSCHIA ACICULARIS		29.2	10.23
TABELLARIA FENESTRATA	43.6		18.07	UCHKUMNAS SP.		0.5	0.16
TETRAEDRUM MINIMUM	0.9		0.38	UEDUCIUM SP.		12.1	4.22
				PEDIASTRUM BURYANUM		0.5	0.16
				PENTUM SP.		0.5	0.16
				QUADRIGULA SP.		0.5	0.16
				SCENEDESMUS QUADRICAUDA		0.5	0.16
				SCENEDESMUS SP.		4.2	1.46
				SPHAEROCYSTIS SP.		5.6	1.95
				STAUASTRUM SP.		0.5	0.16
				SYNEDNA SP.		0.9	0.32
				TABELLARIA FENESTRATA		65.4	22.89
				TETRAEDRUM MINIMUM		0.5	0.16



Appendix B, 8 Nov. 1971 continued.

SDC 1-1	34	208.8	3.63	SDC 1-3	34	226.4	3.62
AMPHORA OVALIS				AMPHIPHORA PELLUCIDA			
ANABAENA SP.		0.5	0.22	AMPHORA SP.		0.9	0.41
ANKISTRIDESMUS FALCATUS V. MIRABILIS		0.5	0.22	ANABAENA SP.		0.5	0.20
APHANOCARPA SP.		0.9	0.44	ANKISTRIDESMUS GELIFACTUS		1.4	0.61
APHANOTHECE SP.		1.9	0.89	APHANOTHECE SP.		0.9	0.41
ASTERIONELLA FORMOSA		13.9	6.67	ASTERIONELLA FORMOSA		0.8	3.89
BLUE-GREEN UNKNOWN FILAMENT		0.9	0.44	BLUE-GREEN UNKNOWN FILAMENT		1.4	0.61
CALONEIS SP.		0.5	0.22	CERATIUM HIRUDINELLA		0.9	0.41
CHLAMYDOMONAS SP.		34.8	16.67	CHLAMYDOMONAS SP.		0.5	0.20
CHROOCOCCLUS SP.		11.1	5.33	CHROOCOCCLUS SP.		13.0	5.74
CLOSTERIOPSIS LUNGISSIMA		0.9	0.44	CLOSTERIOPSIS LUNGISSIMA		18.6	8.20
CLOSTERIUM ACICULARE		0.5	0.22	COELASTRUM SP.		0.5	0.20
COELASTRUM SP.		2.3	1.11	COSMARIUM SP.		1.4	0.61
COSMARIUM SP.		0.9	0.44	CRUCIGENTIA SP.		0.5	0.20
CRUCIGENTIA QUADRATA		3.7	1.78	CUSMARIUM SP.		0.9	0.41
CRUCIGENTIA SP.		0.5	0.22	CRYPTOMONAS SP.		15.8	6.97
CRYPTOMONAS SP.		13.9	6.67	CYCLUTELLA SP.		4.6	2.05
CYCLUTELLA SP.		0.5	0.22	DINOMYDION DIVERGENS		5.1	2.25
DINOMYDION DIVERGENS		0.5	0.22	FLAGELLATES		0.9	0.41
DIPLONETS PARKIA		6.0	2.89	FRAGILARIA CRUTONENSIS		27.4	12.09
ELAKATUTIRIX SP.		0.9	0.44	FRAGILARIA INTERMEDIA V. FALLAX		1.9	0.82
FRAGILARIA CRUTONENSIS		16.2	7.78	GILICYSTIS SP.		27.8	12.30
GLOEUCYSTIS SP.		13.0	6.22	KIRCHNERIELLA SP.		0.5	0.20
GUMPHUSPHAERIA SP.		2.8	1.33	LAGEHIMIA SP.		0.5	0.20
GREEN COLONY, UNKNOWN		0.5	0.22	MELISSITA SP.		0.5	0.20
GREEN SOLITARY, UNKNOWN		0.9	0.44	NAVICULA SP.		0.5	0.20
MUUGEUTIA SP.		0.5	0.22	NITZSCHIA ACICULARIS		0.5	0.20
NITZSCHIA ACICULARIS		0.5	0.22	UCHRAMONAS SP.		1.4	0.61
NITZSCHIA SP.		0.5	0.22	PHYCIS SP.		60.3	26.64
NUCYSTIS SP.		46.9	22.44	PHYCIS SP.		10.2	4.51
SCENEDESMUS DIMORPHUS		0.9	0.44	QUADATGULA SP.		0.9	0.41
SCENEDESMUS SP.		3.2	1.56	SCENEDESMUS SP.		0.5	0.20
SYNEDRA SP.		0.5	0.22	SYNEDRA SP.		1.4	0.61
TABELLARIA FENESTRATA		26.4	12.67	TABELLARIA FENESTRATA		0.5	0.20
				TETRALITHUM MINIMUM		14.8	6.56
						0.9	0.41

Appendix B, 8 Nov. 1971 continued.

SDC 2-0	32	465.6	3.99	SUC 2-1	31	422.8	3.76
AMPHORA SP.		1.9	0.40	AMPHORA SP.		0.9	0.22
ANABAENA SP.		3.7	0.80	ANABAENA SP.		0.9	0.22
ANKISTRODESMUS FALCATUS V. MIRABILIS		1.9	0.40	ANKISTRODESMUS FALCATUS V. MIRABILIS		0.9	0.22
ANKISTRODESMUS FALCATUS		1.9	0.40	ANKISTRODESMUS GELIFACTUS		0.9	0.22
ANKISTRODESMUS GELIFACTUS		1.9	0.40	APHANUTHICE SP.		30.6	7.24
APHANUCAPSA SP.		13.0	2.79	ASTERIONELLA FORMOSA		0.9	0.22
APHANUTHICE SP.		44.5	9.56	CHLAMYDOMONAS SP.		64.9	15.35
ASTERIONELLA FORMOSA		13.0	2.79	CHRODIOCCUS SP.		21.3	5.04
CHLAMYDOMONAS SP.		39.0	8.37	CLOSTERIOPSIS LONGISSIMA		0.9	0.22
CHRODIOCCUS SP.		18.5	3.98	CLOSTERIUM ACIRCULARE		1.9	0.44
CLOSTERIOPSIS LONGISSIMA		1.9	0.40	COELASTRUM SP.		5.6	1.32
CLOSTERIUM ACIRCULARE		1.9	0.40	COSMARUM SP.		0.9	0.22
COELASTRUM SP.		1.9	0.40	CRUCIGENIA QUADRATA		0.9	0.22
COELUSPHAERIUM SP.		3.7	0.80	CRUCIGENIA SP.		0.9	0.22
CYCLOMONAS SP.		7.4	1.59	CRYPTOMONAS SP.		38.9	9.21
CYCLOTELLA SP.		5.6	1.20	CYCLUTELLA SP.		1.9	0.44
DINOBRYON DIVERGENS		37.1	7.97	DESMID		1.9	0.44
FLAGELLATES		1.9	0.40	DINOBRYON DIVERGENS		23.2	5.48
FRAGILARIA CRUTONENSIS		39.0	8.37	FRAGILARIA CRUTONENSIS		39.9	9.43
FRAGILARIA SP.		1.9	0.40	FRAGILARIA SP.		3.7	0.88
GLOEUCYSTIS SP.		51.9	11.16	GLOEUCYSTIS SP.		33.4	7.89
GOMPHOSPHERIA SP.		1.9	0.40	GOMPHOSPHERIA SP.		4.6	1.10
GREEN SOLITARY, UNKNOWN		1.9	0.40	MELUSINA SP.		7.4	1.75
MOUGEOTIA SP.		1.9	0.40	NITZSCHIA ACICULARIS		2.8	0.66
NAVICULA SP.		1.9	0.40	UCHROMONAS SP.		48.2	11.40
NITZSCHIA ACICULARIS		55.6	11.95	SCENEDESMUS DIMORPHUS		15.8	3.73
UCHROMONAS SP.		27.8	5.98	SCENEDESMUS SP.		0.9	0.22
UOCYSTIS SP.		7.4	1.59	SPHAEROCYSTIS SP.		3.7	0.88
SCENEDESMUS SP.		7.4	1.59	STAUROSTROM SP.		1.9	0.46
SPHAEROCYSTIS SP.		63.1	13.55	TABELLARIA FENESTRATA		0.9	0.22
TABELLARIA FENESTRATA		1.9	0.40	TABELLARIA FENESTRATA		61.2	14.47
TETRAEDRUM MINIMUM							

Appendix B, 8 Nov. 1971 continued.

SUC 2-2	29	442.6	3.70	SUC 2-3	35	398.1	3.62
ANKISTRUESMUS SP.			3.70	AMPHURA SP.			0.5
APHANUCAPSA SP.		2.8	0.63	ANADENA SP.			0.12
APHANUTHECE SP.		5.6	1.26	ANKISTRUESMUS FALCATUS V. MIRABILIS			0.5
ASTERIONELLA FORMOSA		13.9	3.14	ANKISTRUESMUS GELIFACIUS			0.12
CHLADOMONAS SP.		2.3	0.52	ANKISTRUESMUS SP.			0.5
CHROCOCCUS SP.		49.1	11.10	APHANUCAPSA SP.			1.4
CHLADOMONAS SP.		24.1	5.45	APHANUTHECE SP.			17.2
CUELASTRUM SP.		5.6	1.26	ASTERIONELLA FORMOSA			4.6
CRUCIGENIA IRREGULARIS		3.7	0.84	CHLADOMONAS SP.			60.8
CRUCIGENIA SP.		0.9	0.21	CHROCOCCUS SP.			10.7
CRYPTOMONAS SP.		29.7	6.70	CLUSTERIOPSIS LONGISSIMA			0.5
CYCLotella SP.		6.5	1.47	CLUSTERIUM SP.			0.5
DIATOMA VULGARE		0.9	0.21	CUELASTRUM SP.			3.7
DINOBRYON DIVERGENS		7.4	1.68	CRUCIGENIA IRREGULARIS			1.9
FLAGELLATES		2.8	0.63	CRUCIGENIA SP.			3.7
FRAGILARIA CAPUCINA		6.5	1.47	CRYPTOMONAS SP.			33.4
FRAGILARIA SP.		115.9	26.18	CYCLotella SP.			4.2
GLOEOCYSTIS SP.		32.4	7.33	DINOBRYON DIVERGENS			16.7
LAGEHETHIA SP.		0.9	0.21	FRAGILARIA SP.			16.7
MELOSIRA SP.		15.8	3.56	GLOEOCYSTIS SP.			47.8
MOUGENTIA SP.		0.9	0.21	GRECI SOLITARY, UNKNOWN			1.4
NAVICULA SP.		0.9	0.21	HELOSIRA SP.			0.9
NITZSCHIA ACICULARIS		2.8	0.63	MOUGENTIA SP.			3.7
OCCHROMONAS SP.		44.5	10.05	NEPHROCYTUM SP.			1.4
UOCYSTIS SP.		10.2	2.30	NITZSCHIA ACICULARIS			0.5
SCENEDESMUS BIJUGA		0.9	0.21	NITZSCHIA SP.			1.4
SCENEDESMUS DIMORPHUS		0.9	0.21	OCCHROMONAS SP.			0.5
SCENEDESMUS SP.		1.9	0.42	PHAEOMONAS SP.			89.6
SPHAEROCYSTIS SP.		11.1	2.51	UOCYSTIS SP.			19.5
TABELLARIA FENESTRATA		41.7	9.42	PERIDINIUM SP.			0.5
				SCENEDESMUS QUADRICAUDA			0.9
				SCENEDESMUS SP.			2.3
				SPHAEROCYSTIS SP.			0.5
				TABELLARIA FENESTRATA			45.0
				TETRAEDRUM MINIMUM			3.2

SOC 2-4	36	290.9	3.30	6.63
AMPHIPLEURA PELLUCIDA		0.5	0.16	16.7
ANABAENA SP.		0.5	0.16	5.6
ANKISTRIDESMUS FALCATUS V. MIRABILIS		0.5	0.16	0.33
ANKISTRIDESMUS GELIFACTUS		0.5	0.16	0.18
APHANOCAPS A SP.		0.5	0.16	2.39
APHANOTHECE SP.		14.8	0.16	1.29
ASTENIONELLA FORMOSA		7.4	0.16	2.03
BLUE-GREEN UNKNOWN FILAMENT		0.9	0.32	0.18
CHLAMYDOMONAS SP.		17.6	0.06	2.40
CHLAMYDOMONAS SP.		11.1	3.83	37.89
CLOSTERIUM SP.		0.5	0.16	1.11
CIRROCOCUS SP.		1.4	0.16	9.06
CUELASTRUM SP.		0.9	0.32	0.37
CUSMARUM SP.		0.5	0.16	0.33
CRUCIGENTIA QUADRATA		26.0	0.93	0.18
CRYPTOMONAS SP.		3.2	1.12	1.11
CYCLITELLA SP.		3.7	1.28	0.18
DINIRAYON DIVERGENS		0.5	0.16	1.9
FLAGELLATES		32.9	11.32	12.37
FRAGILARIA SP.		0.5	0.16	2.03
FRAGILARIA SP.		26.4	0.5	0.37
GLENDINIUM SP.		1.4	0.48	1.11
GOMPHOSPHERIA SP.		0.5	0.16	0.92
GREEN CULTURE, UNKNOWN		0.9	0.32	0.18
HELOSIRA SP.		0.5	0.16	5.73
NITZSCHIA ACICULARIS		109.5	37.64	0.37
OCCHROMONAS SP.		7.4	2.55	1.11
UOCYSTIS SP.		0.5	0.16	0.92
PENIUM SP.		0.5	0.16	0.18
PERIDINIUM SP.		0.5	0.16	0.37
RHIZOLENIA ERIENSIS		0.5	0.16	0.18
SCENEDESCHUS SP.		1.9	0.64	0.37
SCHROEDERIA SP.		0.5	0.16	0.37
SPHAEROCYSTIS SP.		3.7	1.28	0.37
SYNEDRA SP.		0.9	0.32	0.37
TABELLARIA FENESTRATA		11.1	3.83	0.37
TETRAEDRUM MINIMUM		0.5	0.16	0.37
SOC 4-1	35	1003.6	3.43	161.5
AMPHIPLEURA PELLUCIDA		5.6	0.33	0.57
AMPHIURA SP.		7.4	0.74	0.29
ANABAENA SP.		1.9	0.18	4.02
ANKISTRIDESMUS FALCATUS V. MIRABILIS		1.9	0.18	1.72
ANKISTRIDESMUS FALCATUS		3.7	0.37	33.03
ANKISTRIDESMUS GELIFACTUS		3.7	0.37	6.03
ANKISTRIDESMUS GELIFACTUS		3.7	0.37	0.57
APHANOTHECE SP.		29.7	0.37	1.15
ASTENIONELLA FORMOSA		27.8	2.77	13.51
BLUE-GREEN UNKNOWN FILAMENT		3.7	0.37	1.15
CHLAMYDOMONAS SP.		0.5	0.16	0.57
CLOSTERIUM SP.		0.5	0.16	0.29
CIRROCOCUS SP.		0.5	0.16	2.30
CUELASTRUM SP.		0.5	0.16	0.86
CUSMARUM SP.		0.5	0.16	1.4
CRUCIGENTIA QUADRATA		0.5	0.16	11.49
CRYPTOMONAS SP.		0.5	0.16	0.57
CYCLITELLA SP.		0.5	0.16	0.37
DINIRAYON DIVERGENS		0.5	0.16	0.29
FLAGELLATES		0.5	0.16	0.37
FRAGILARIA SP.		0.5	0.16	0.37
FRAGILARIA SP.		0.5	0.16	0.37
GLENDINIUM SP.		0.5	0.16	0.37
GOMPHOSPHERIA SP.		0.5	0.16	0.37
KIRCHNERIELLA SP.		0.5	0.16	0.37
LAGERHEIMIA SP.		0.5	0.16	0.37
MELUSIRA SP.		0.5	0.16	0.37
OCCHROMONAS SP.		0.5	0.16	0.37
UOCYSTIS SP.		0.5	0.16	0.37
TABELLARIA FENESTRATA		0.5	0.16	0.37
TETRAEDRUM MINIMUM		0.5	0.16	0.37

APPENDIX C. ZOOPLANKTON

15 April 1971

Samples by vertical haul of metered #10 net. Organisms per cubic meter.

	<u>DC-1</u>	<u>DC-3</u>	<u>DC-4</u>	<u>NDC-125-1</u>	<u>NDC-5-1</u>	<u>NDC-5-2</u>	<u>NDC-5-3</u>	<u>NDC-1-1</u>	<u>NDC-1-2</u>	<u>NDC-1-3</u>	<u>NDC-2-1</u>	<u>NDC-2-2</u>
Copepod nauplii												
Cyclopoid copepods												
Immature copepodids												
Cyclops												
Tropocyclops												
Total cyclopoids	1,147	792	4,735	1,186	273	219	1,839	168	375	3,675	1,546	173
Calanoid copepods												
Immature copepodids												
Diaptomus												
Total diaptomids	2,443	776	1,592	1,291	819	1,041	2,153	560	907	2,852	1,649	494
Epischura	0	0	0	0	0	0	0	0	0	0	0	0
Eurytemora	0	0	0	0	0	0	0	0	0	0	0	0
Limnocalanus	22	0	0	0	0	0	0	0	0	22	0	0
Harpacticoid copepods												
Canthocamptus	0	0	10	0	0	0	0	0	0	0	0	0
Cladocerans												
Bosmina												
Eubosmina												
Total Bosminidae	0	0	0	0	0	0	0	0	0	0	309	0
Ceriodaphnia	0	0	0	0	0	0	0	0	0	0	0	0
Chydorus	0	0	0	0	0	0	0	0	0	0	0	0
Daphnia	0	0	10	0	0	0	0	0	0	0	0	0
Diaphanosoma	0	0	0	0	0	0	0	0	0	0	0	0
Holopedium	0	0	0	0	0	0	0	0	0	0	0	0
Leptodora	0	0	0	0	0	0	0	0	0	0	0	0
Polyphemus	0	0	0	0	0	0	0	0	0	0	0	0
Rotifers												
Asplanchna	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3,612	1,568	6,347	2,477	1,092	1,260	3,992	728	1,282	6,549	3,504	667
TOTAL w/o nauplii												
Diversity Index	0.95	1.00	0.85	1.00	0.81	0.67	1.00	0.78	0.87	1.02	1.34	0.83

Appendix C, 15 April 1971 continued.

	NDC-2-2	NDC-2-4	NDC-4-1	NDC-4-2	NDC-4-3	NDC-4-4	NDC-7-1	NDC-7-2	NDC-7-3	NDC-7-4	NDC-7-5	SDC-5-1
Copepod nauplii	3,267											
Cyclopoid copepods												
Immature copepodids	193											
Cyclops	457											
Tropocyclops	0											
Total cyclopoids	650	4,395	1,029	681	4,649	2,362	1,155	617	1,604	1,522	6,298	186
Calanoid copepods												
Immature copepodids	227											
Diaptomus	920											
Total diaptomids	1,147	2,455	343	1,065	2,610	1,304	513	815	857	1,096	2,429	886
Epicthura	0	0	0	0	0	0	0	0	0	0	0	0
Eurytemora	0	0	0	0	0	0	0	0	0	0	0	0
Limnocalanus	13	0	0	0	0	0	0	0	0	0	38	0
Harpacticoid copepods												
Canthocamptus	0	0	98	0	0	0	0	0	0	0	0	0
Cladocerans												
Bosmina	17											
Eubosmina	3											
Total Bosminidae	20	0	0	0	0	0	0	0	0	0	0	0
Ceriodaphnia	0	0	0	0	0	0	0	0	0	0	0	0
Chydorus	0	0	0	0	0	0	0	0	0	0	0	0
Daphnia	0	0	49	0	0	0	0	0	0	0	0	0
Diaphanosoma	0	0	0	0	0	0	0	0	0	0	0	0
Holopedium	0	0	0	0	0	0	0	0	0	0	0	0
Leptodora	0	0	0	0	0	0	0	0	0	0	0	0
Polyphemus	0	0	0	0	0	0	0	0	0	0	0	0
Rotifers												
Asplanchna	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	5,097											
TOTAL w/o nauplii	1,830	6,850	1,519	1,746	7,259	3,666	1,668	1,432	2,461	2,618	8,765	1,072
Diversity Index	1.07	0.94	1.28	0.96	0.94	0.94	0.89	0.99	0.93	0.98	0.89	0.67

Appendix C, 15 April 1971 continued.

	<u>SDC-5-2</u>	<u>SDC-5-3</u>	<u>SDC-1-1</u>	<u>SDC-1-2</u>	<u>SDC-1-3</u>	<u>SDC-2-1</u>	<u>SDC-2-2</u>	<u>SDC-2-3</u>	<u>SDC-4-1</u>	<u>SDC-4-2</u>	<u>SDC-4-3</u>
Copepod nauplii											
Cyclopoid copepods											
Immature copepodids											
<i>Cyclops</i>											
<i>Tropocyclops</i>											
Total cyclopoids	151	951	222	191	13,062	158	156	2,838	95	2,709	8,911
Calanoid copepods											
Immature copepodids											
<i>Diaptomus</i>											
Total diaptomids	728	802	578	694	3,604	210	557	2,106	110	7,415	3,909
<i>Epischura</i>	0	0	0	0	0	0	0	0	0	0	0
<i>Eurytemora</i>	0	0	0	0	0	0	0	0	0	0	0
<i>Limnocalanus</i>	0	0	0	0	44	0	0	0	0	0	0
Harpacticoid copepods											
<i>Canthocamptus</i>	0	0	0	0	0	0	0	0	0	0	0
Cladocerans											
<i>Bosmina</i>											
<i>Eubosmina</i>											
Total Bosminidae	0	0	0	0	0	0	0	0	0	0	0
<i>Cartodaphnia</i>	0	0	0	0	0	0	0	0	0	0	0
<i>Chydorus</i>	0	0	0	0	0	0	0	0	0	0	0
<i>Daphnia</i>	0	0	0	0	0	0	0	0	0	0	0
<i>Diaphanosoma</i>	0	0	0	0	0	0	0	0	0	0	0
<i>Holopedium</i>	0	0	0	0	0	0	0	0	0	0	328
<i>Leptodora</i>	0	0	0	0	0	0	0	0	0	0	0
<i>Polypheumus</i>	0	0	0	0	0	0	0	0	0	0	0
Rotifers											
<i>Asplanchna</i>	0	0	0	0	0	0	0	0	0	0	0
TOTAL											
TOTAL w/o nauplii	879	1,753	800	885	16,710	368	713	4,944	205	10,124	13,148
Diversity Index	0.66	0.99	0.85	0.75	0.78	0.99	0.76	0.98	1.00	0.84	1.03

Appendix C, 15 April 1971 continued.

Appendix C, 9 July 1971.

	<u>SDC-4-4</u>	<u>SDC-7-1</u>	<u>SDC-7-2</u>	<u>SDC-7-3</u>	<u>SDC-7-4</u>	<u>SDC-7-5</u>	<u>DC-3</u>	<u>DC-4</u>	<u>NDC-25-1</u>	<u>NDC-5-1</u>	<u>NDC-5-2</u>	<u>NDC-5-3</u>
Copepod nauplii												
Cyclopoid copepods												
Immature copepodids												
<i>Cyclops</i>												4,409
<i>Tropocyclops</i>												17,019
Total cyclopoids	3,214	139	647	2,137	1,657	893	7,464	23,993	5,862	6,549	4,035	24,391
Calanoid copepods												
Immature copepodids												4,314
<i>Diaptomus</i>												2,228
Total diaptomids	2,496	258	801	2,741	3,175	1,022	4,961	17,697	2,807	2,292	2,152	6,542
<i>Epischura</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Eurytemora</i>	0	0	0	0	0	0	0	0	0	0	0	47
<i>Limnocalanus</i>	8	0	0	15	9	0	0	0	0	0	0	0
Harpacticoid copepods												
<i>Canthocamptus</i>	0	20	0	0	0	0	0	0	0	0	0	47
Cladocerans												
<i>Bosmina</i>												17,351
<i>Eubosmina</i>												0
Total Bosminidae	0	0	0	0	9	0	35,229	86,480	89,559	92,591	85,596	17,351
<i>Ceriodaphnia</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Chydorus</i>	0	0	0	0	0	0	0	0	0	0	0	948
<i>Daphnia</i>	0	0	0	0	0	0	109	906	62	82	0	119
<i>Diaphanosoma</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Holopedium</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Leptodora</i>	0	0	0	0	0	0	22	0	0	0	0	0
<i>Polyphemus</i>	0	0	0	0	0	0	348	859	0	82	161	237
Rotifers												
<i>Asplanchna</i>	0	0	0	0	0	0	892	1,765	2,058	0	2,421	3,698
TOTAL												58,121
TOTAL w/o nauplii	5,718	417	1,448	4,893	4,850	1,515	49,025	131,700	100,348	101,596	94,365	53,712
Diversity Index	1.00	1.17	0.99	1.02	0.96	1.00	1.27	1.42	0.65	0.52	0.60	1.85



Appendix C, 9 July 1971 continued.

	<u>NDC-1-1</u>	<u>NDC-1-2</u>	<u>NDC-1-3</u>	<u>NDC-2-1</u>	<u>NDC-2-2</u>	<u>NDC-2-3</u>	<u>NDC-2-4</u>	<u>NDC-4-1</u>	<u>NDC-4-2</u>	<u>NDC-4-3</u>	<u>NDC-4-4</u>	<u>NDC-7-1</u>
Copepod nauplii	3,586		12,971	3,378	2,173	3,627		2,197		9,533	3,682	
Cyclopoid copepods												
Immature copepodids	1,855	12,373		3,244	2,094	5,867		2,155		22,933	4,736	
<i>Cyclops</i>	433	13,312		289	474	2,080		235		17,067	2,781	
<i>Tropocyclops</i>	1,082	0		333	435	213		469		333	134	
Total cyclopoids	9,417	3,370	25,685	3,866	3,003	8,160	14,770	2,859	6,091	40,333	7,651	2,254
Calanoid copepods												
Immature copepodids	2,443	4,565		2,667	2,212	3,200		1,941		8,400	3,145	
<i>Diaptomus</i>	371	15,275		67	553	1,440		256		5,600	1,841	
Total diaptomids	4,709	2,814	19,840	2,734	2,765	4,640	11,710	2,197	4,147	14,000	4,986	1,702
<i>Epischura</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Eurytemora</i>	0	62	0	89	39	0	41	0	0	67	0	0
<i>Limnocalanus</i>	0	0	277	0	0	0	0	0	0	67	288	0
Harpacticoid copepods												
<i>Canthocamptus</i>	0	0	43	0	0	53	0	0	0	0	19	0
Cladocerans												
<i>Bosmina</i>	52,870	31,360		81,200	40,691	7,173		99,456		27,933	7,747	
<i>Eubosmina</i>	0	0		0	0	53		0		0	19	
Total Bosminidae	167,864	52,870	31,360	81,200	40,691	7,226	28,193	99,456	100,570	27,933	7,766	47,288
<i>Ceriodaphnia</i>	0	0	107	0	0	0	0	0	0	0	0	0
<i>Chydorus</i>	0	247	21	733	277	107	0	2,091	0	267	0	0
<i>Daphnia</i>	0	31	64	22	39	53	530	64	0	600	134	0
<i>Diaphanosoma</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Holopedium</i>	0	93	0	22	0	0	122	21	0	0	19	0
<i>Leptodora</i>	109	0	0	0	0	0	0	0	0	0	19	46
<i>Polyphemus</i>	109	309	661	133	198	107	571	43	194	133	230	92
Rotifers												
<i>Asplanchna</i>	0	3,927	853	2,178	2,568	2,880	775	1,984	3,629	2,000	211	414
TOTAL	67,340	91,883		94,444	51,792	27,067		110,912		95,000	25,005	
TOTAL w/o nauplii	182,208	63,754	78,912	91,066	49,619	23,440	56,712	108,715	114,631	85,467	21,323	51,796
Diversity Index	0.48	0.99	1.74	0.71	1.02	2.00	1.72	0.61	0.74	1.69	1.84	0.56

Appendix C, 9 July 1971 continued.

	<u>NDC-7-2</u>	<u>NDC-7-3</u>	<u>NDC-7-4</u>	<u>NDC-7-5</u>	<u>SDC-25-1</u>	<u>SDC-5-1</u>	<u>SDC-5-2</u>	<u>SDC-5-3</u>	<u>SDC-1-1</u>	<u>SDC-1-2</u>	<u>SDC-1-3</u>	<u>SDC-2-1</u>
Copepod nauplii					3,683					3,413	12,722	1,760
Cyclopoid copepods												
Immature copepodids					10,897					10,240	6,723	3,360
Cyclops					890					3,209	4,448	160
Tropocyclops					0					205	259	213
Total cyclopoids	4,134	16,697	17,949	16,542	11,787	4,680	3,095	1,360	6,063	13,654	11,430	3,733
Calanoid copepods												
Immature copepodids					3,561					2,253	7,137	1,440
Diaptomus					1,320					68	2,482	267
Total diaptomids	1,799	3,480	7,945	12,150	4,881	2,990	1,435	650	1,222	2,321	9,619	1,707
Epischura	0	0	0	0	0	0	0	0	0	0	0	0
Eurytemora	0	0	0	0	0	0	0	0	0	0	155	0
Limnocalanus	0	0	0	36	0	0	0	0	0	0	0	0
Harpacticoid copepods												
Canthocamptus	0	235	0	0	0	0	0	7	0	0	0	0
Cladocerans												
Bosmina					70,661					54,613	33,926	40,693
Eubosmina					522					0	0	0
Total Bosminidae	52,200	28,173	33,057	32,670	71,183	135,460	48,035	7,584	61,476	54,613	33,926	40,693
Ceriodaphnia	0	0	0	0	0	0	0	0	0	0	0	0
Chydorus	0	0	0	0	1,842	0	0	0	0	683	52	160
Daphnia	32	753	823	252	338	390	0	7	0	0	207	0
Diaphanosoma	0	0	0	0	0	0	0	0	0	0	0	0
Holopedium	0	0	0	0	0	0	0	0	0	0	0	0
Leptodora	32	0	0	0	0	0	0	0	0	0	0	0
Polyphemus	663	800	288	414	614	260	478	67	282	0	103	160
Rotifers												
Asplanchna	0	1,458	2,676	576	2,057	3,770	1,548	342	1,692	2,526	2,586	1,040
TOTAL					96,414							
TOTAL w/o nauplii	58,860	51,596	62,738	62,640	92,731	147,550	54,591	10,024	70,735	73,865	58,130	47,520
Diversity Index	0.66	1.63	1.69	1.60	1.21	0.56	0.74	1.18	0.74	1.16	1.62	0.83

Appendix C, 9 July 1971 continued.

	SDC-2-2	SDC-2-3	SDC-2-4	SDC-4-1	SDC-4-2	SDC-4-3	SDC-4-4	SDC-7-1	SDC-7-2	SDC-7-3	SDC-7-4	SDC-7-5
Copepod nauplii	4,587	5,120	5,927	1,004	3,968	6,542	5,602	2,844			4,267	5,081
Cyclopoid copepods												
Immature copepodids	5,600	8,420	8,116	1,631	3,584	13,369	6,644	3,352			10,473	31,961
Cyclops	693	5,006	5,843	0	299	13,995	10,097	102			4,978	14,274
Tropocyclops	320	284	223	63	341	114	456	0			420	0
Total cyclopoids	6,613	13,710	14,182	1,694	4,224	27,478	17,197	3,454	2,785	15,295	15,871	46,235
Calanoid copepods												
Immature copepodids	3,040	3,868	7,819	0	2,219	4,494	8,468	1,016			3,232	3,685
Diaptomus	53	1,764	3,710	0	192	2,788	2,801	406			1,745	5,042
Total diaptomids	3,093	5,632	11,529	0	2,411	7,282	11,269	1,422	979	6,650	4,977	8,727
Epischura	0	0	0	0	0	0	0	0	0	0	0	0
Eurytemora	0	114	28	63	85	171	33	0	0	0	0	0
Limnocalanus	0	57	28	0	0	0	33	0	0	0	0	39
Harpacticoid copepods												
Canthocamptus	0	114	5	0	0	28	0	0	0	67	0	78
Cladocerans												
Bosmina	63,040	107,292	27,808	25,788	72,107	139,264	44,230	28,648			155,345	132,577
Eubosmina	0	284	0	0	21	0	0	0			0	0
Total Bosminidae	63,040	107,576	27,808	25,788	72,128	139,264	44,230	28,648	40,519	97,223	155,345	132,577
Ceriodaphnia	0	0	0	0	0	0	0	0	0	0	0	0
Chydorus	53	228	9	941	256	85	0	1,117	0	0	32	0
Daphnia	53	0	172	0	64	171	228	0	0	0	97	427
Diaphanosoma	0	0	0	0	0	0	0	0	0	0	0	0
Holopedium	0	0	19	0	0	0	228	0	0	0	0	0
Leptodora	0	0	0	0	0	0	0	0	0	0	0	0
Polyphemus	0	228	181	0	64	181	163	0	0	333	65	543
Rotifers												
Asplanchna	2,987	3,413	176	1,067	1,323	3,356	912	5,486	828	665	1,002	5,508
TOTAL	80,427	136,192	60,076	30,682	84,565	184,405	79,894	42,971			181,656	199,214
TOTAL w/o nauplii	75,840	131,072	54,149	29,678	80,597	177,863	74,292	40,127	45,111	120,233	177,389	194,133
Diversity Index	0.92	0.96	1.57	0.76	0.67	1.02	1.51	1.36	0.61	0.93	0.68	1.27

	DC-4	NDC-4-4	SDC-5-1	SDC-5-3	SDC-1-1	SDC-1-2	SDC-1-3	SDC-2-3	SDC-2-4	SDC-4-1	SDC-4-2	SDC-4-3
Copepod nauplii	2,785	1,146	5,600	2,753	5,803	737	1,886	945	3,493	2,274	3,069	1,236
Cyclopoid copepods												
Immature copepodids	8,264	18,238	1,578	3,689	1,995	3,530	6,782	7,802	13,018	196	1,904	9,314
<i>Cyclops</i>	1,976	3,897	422	826	245	815	3,099	366	5,398	0	131	377
<i>Tropocyclops</i>	4,581	0	200	4,404	427	1,978	4,177	0	4,604	188	49	0
Total cyclopoids	14,821	22,135	2,200	8,919	2,667	6,323	14,058	8,168	23,020	384	2,084	9,691
Calanoid copepods												
Immature copepodids	12,935	10,851	2,444	7,047	3,381	4,732	12,126	4,876	13,574	847	3,315	7,805
<i>Diaptomus</i>	1,258	1,579	289	1,156	245	853	988	274	1,548	102	624	663
Total diaptomids	14,193	12,430	2,733	8,203	3,626	5,585	13,114	5,150	15,122	949	3,939	8,468
<i>Epischura</i>	90	25	22	0	0	0	0	152	0	0	16	13
<i>Eurytemora</i>	0	0	0	110	11	0	90	0	0	0	0	0
<i>Limnocalanus</i>	0	51	0	0	0	0	0	0	40	0	0	0
Harpacticoid copepods												
<i>Canthocamptus</i>	0	0	0	0	0	0	0	0	0	0	0	0
Cladocerans												
<i>Bosmina</i>	5,210	21,703	51,156	3,468	16,363	2,444	3,593	3,749	18,813	10,902	4,808	4,033
<i>Eubosmina</i>	1,976	459	222	936	149	1,086	1,168	1,341	1,191	0	591	299
Total Bosminidae	7,186	22,162	51,378	4,404	16,512	3,530	4,761	5,090	21,004	10,902	5,399	4,332
<i>Ceriodaphnia</i>	90	51	44	330	779	659	225	518	119	63	345	273
<i>Chydorus</i>	0	0	22	0	11	0	45	30	0	0	0	0
<i>Daphnia</i>	20,749	5,859	2,089	17,672	1,973	18,928	13,743	25,539	8,494	416	6,236	18,784
<i>Diaplanosoma</i>	90	0	133	495	11	427	45	610	79	24	66	169
<i>Holopedium</i>	2,425	1,299	3,400	4,955	6,187	6,245	2,470	7,131	873	1,200	3,512	4,397
<i>Leptodora</i>	180	25	44	275	21	39	225	305	119	0	0	65
<i>Polyphemus</i>	0	51	333	110	32	0	90	396	0	31	574	247
Rotifers												
<i>Asplanchna</i>	5,300	25	156	4,735	747	1,086	3,009	0	1,072	141	115	2,966
TOTAL	67,907	65,261	68,155	52,962	38,379	43,559	53,760	54,034	72,434	16,384	25,387	50,641
TOTAL w/o nauplii	65,122	64,115	62,555	50,209	32,576	42,822	51,874	53,089	68,941	14,110	22,318	49,405
Diversity Index	2.38	1.99	1.10	2.55	2.12	2.32	2.40	2.23	2.13	1.28	2.49	2.41

	SDC-4-4	SDC-7-1	SDC-7-2	SDC-7-3	SDC-7-4	SDC-7-5	SDC-1-1	SDC-5-1	SDC-5-2	SDC-5-3	SDC-1-1	SDC-1-2
<b>Copepod nauplii</b>	3,026	2,275	3,378	1,574	2,731	3,155	1,224	1,154	2,067	1,820	1,804	1,087
<b>Cyclopoid copepods</b>												
Immature copepodids	22,271	467	1,422	3,459	8,064	13,345	10,105	7,059	15,467	13,047	6,916	6,064
<i>Cyclops</i>	11,862	83	207	207	1,749	2,383	1,841	776	2,600	1,365	1,058	141
<i>Tropocyclops</i>	1,120	225	830	3,625	5,547	953	1,426	524	1,240 <sup>7*</sup>	1,479	631	595
Total cyclopoids	35,253	775	2,459	7,291	15,360	16,681	13,372	8,359	19,314	15,891	8,605	6,800
<b>Calanoid copepods</b>												
Immature copepodids	11,257	1,492	16,830	11,371	14,834	17,294	3,054	989	3,307	6,789	1,431	1,669
<i>Diaptomus</i>	2,693	321	2,252	766	612	2,655	225	145	493	1,403	169	298
Total diaptomids	13,950	1,813	19,082	12,137	15,446	19,949	3,279	1,134	3,800	8,192	1,600	1,967
<i>Epischura</i>	0	4	0	10	71	0	0	29	7	76	0	18
<i>Eurytemora</i>	121	4	59	52	43	0	6	19	7	0	0	0
<i>Limnocalanus</i>	0	0	0	0	14	0	0	0	13	0	0	0
<b>Harpacticoid copepods</b>												
<i>Canthocamptus</i>	0	0	0	0	0	0	0	0	0	0	0	0
<b>Cladocerans</b>												
<i>Bosmina</i>	52,713	37,400	7,763	2,278	2,489	9,895	213	970	287	228	276	22
<i>Eubosmina</i>	121	100	1,481	911	1,294	68	1,763	3,695	4,960	5,879	1,138	2,099
Total Bosminidae	52,834	37,500	9,244	3,189	3,783	9,963	1,976	4,665	5,247	6,107	1,414	2,121
<i>Ceriodaphnia</i>	30	62	803	249	128	113	0	10	0	0	0	0
<i>Chydorus</i>	0	8	59	0	0	0	6	10	7	0	0	0
<i>Daphnia</i>	6,839	233	9,837	8,202	14,478	14,071	1,572	1,086	2,493	3,262	791	1,348
<i>Diaphanosoma</i>	0	12	178	114	249	68	45	10	40	38	0	0
<i>Eolopedium</i>	756	3,725	15,763	8,409	3,641	1,294	1,134	659	1,520	531	1,013	1,184
<i>Leptodora</i>	0	8	652	280	306	68	6	0	0	0	18	0
<i>Polyphemus</i>	30	17	0	72	7	23	0	10	0	0	0	0
<b>Rotifers</b>												
<i>Asplanchna</i>	908	475	1,659	1,968	2,873	136	11	10	40	38	53	19
<b>TOTAL</b>	113,747	46,912	63,200	43,547	59,129	65,520	22,630	17,154	34,553	35,954	15,298	14,544
<b>TOTAL w/o nauplii</b>	110,721	44,637	59,822	41,973	56,398	62,365	21,406	16,000	32,486	34,134	13,494	13,457
<b>Diversity Index</b>	1.78	0.94	2.41	2.52	2.38	2.12	1.69	1.79	1.76	1.91	1.68	1.99
<sup>a</sup> <i>Paracyclops</i>												

Appendix C, 8 Nov. 1971 continued.

	SDC-1-3	SDC-2-1	SDC-2-2	SDC-2-3	SDC-2-4	SDC-4-2	SDC-4-3	SDC-4-4
<b>Copepod nauplii</b>	659	2,524	1,561	1,873	499	1,128	865	422
<b>Cyclopoid copepods</b>								
Immature copepodids	13,925	12,409	16,954	13,154	11,448	6,074	10,551	9,166
<i>Cyclops</i>	2,017	2,027	2,403	1,582	1,733	679	1,522	1,227
<i>Tropocyclops</i>	1,513	578	1,039	1,457	1,392	691	951	920
Total cyclopoids	17,455	15,023 <sup>9*</sup>	20,396	16,193	14,573	7,444	13,024	11,313
<b>Calanoid copepods</b>								
Immature copepodids	10,434	1,253	2,874	5,703	8,034	1,639	8,562	9,204
<i>Diaptomus</i>	1,629	196	292	957	1,339	152	1,885	1,956
Total diaptomids	12,063	1,449	3,166	6,660	9,373	1,791	10,447	11,160
<i>Epischura</i>	0	27	6	83	26	6	0	115
<i>Eurytemora</i>	0	27	6	0	0	0	6	0
<i>Limnocalanus</i>	0	0	0	0	0	6	9	38
<b>Harpacticoid copepods</b>								
<i>Canthocamptus</i>	0	0	0	0	0	0	0	115
<b>Cladocerans</b>								
<i>Bosmina</i>	194	453	112	416	158	107	179	268
<i>Eubosmina</i>	6,516	1,724	5,996	6,327	8,245	3,290	8,545	5,753
Total Bosminidae	6,710	2,177	6,108	6,743	8,403	3,397	8,724	6,021
<i>Ceriodaphnia</i>	0	0	0	0	0	0	0	0
<i>Chydorus</i>	39	9	0	0	0	11	14	77
<i>Daphnia</i>	1,435	1,111	2,841	3,996	2,862	1,168	3,408	1,726
<i>Diaphanosoma</i>	0	62	95	0	26	34	35	0
<i>Holopedium</i>	388	2,124	2,392	1,457	683	1,460	951	690
<i>Leptodora</i>	0	0	11	0	0	11	6	0
<i>Polyphemus</i>	0	0	0	0	0	0	0	0
<b>Rotifers</b>								
<i>Asplanchna</i>	0	89	0	83	0	28	0	0
<b>TOTAL</b>	38,749	24,622	36,581	37,089	36,444	16,483	37,489	31,679
<b>TOTAL w/o nauplii</b>	38,090	22,098	35,020	35,216	35,945	15,355	36,624	31,257
<b>Diversity Index</b>	1.74	1.59	1.80	2.01	1.94	1.51	2.01	1.96
<b>*Mesocyclops</b>								

## APPENDIX D. BENTHOS SURVEY

### Key to Abbreviations Used for Benthos Species Names 15 April 1971

#### CHIRONOMIDÆ

*Chironomus fluv*  
*C. anth*  
*Cryptochir* sp. 2

*C. sp. 3*  
*Para obsc*  
*Hetrotriss subp*  
*H. grim*  
*Proc sp.*  
*Mono tubr*  
*Pott long*

*C. fluviatilis*-group  
*C. anthracinus*-group  
*Cryptochironomus* species #2  
(unidentified)  
*C. species #3* (unidentified)  
*Paracladopelma* cfr. *obscura*  
*Heterotrissocladius* cfr. *subpilosus*  
*H. cfr. grimshawi*  
*Procladius* species (unidentified)  
*Monodiamesa tuberculata*  
*Potthastia* cfr. *longimana*

#### TUBIFICIDAE WITH UNIDENTIFIABLE IMMATURE STAGES

*Limnodrilus hoff*  
*L. cerv*  
*L. clap*  
*L. prof*  
*L. ang*  
*Pota mold*  
*Pelo frey*  
*imm.*  
*Tubf tubf*  
*imm.*

*L. hoffmeisteri*  
*L. cervix*  
*L. clapparedeianus*  
*L. profundicola*  
*L. angustipenis*  
*Potamothrrix moldaviensis*  
*Peloscolex freyi*  
*immatures without hair chaetae*  
*Tubifex tubifex*  
*immatures with hair chaetae*

#### HIRUDINEA

*Nephel obscur*  
*Glossi compla*  
*Helobd stagna*

*Nephelopsis obscura*  
*Glossiphonia complanata*  
*Helobdella stagnalis*

Appendix D, 15 April 1971 continued.

	CHIRONOMIDAE (#/m <sup>2</sup> )									
Station	<i>Chironomus</i>		<i>Cryptochir</i>		<i>Para</i>	<i>Hetrotriss</i>	<i>Proc</i>	<i>Mono</i>	<i>Pott</i>	
	fluv	anth	sp. 2	sp. 3	obsc	subp	grim	sp.	tubr	long
NDC-.5-1	36		181		18			18	36	18
SDC-2-1	36									
SDC-7-1										
SDC-1-1										
NDC-2-1					36			18		
NDC-1-1										
SDC-.5-1			36					18		
DC-1									36	
NDC-7-1										
SDC-1-2										
NDC-2-2										
NDC-7-2			36							
NDC-.5-2	91		163							18
SDC-7-2	54		109					18		
SDC-2-2	18		36	18						
SDC-.5-2								127		36
NDC-1-2			363						36	
NDC-.25-1								18		
SDC-.25-1								18		54
DC-2	18	54	145					18	18	18
NDC-7-3		18								
SDC-7-3	18		18					91	36	
NDC-2-3	91							181		36
SDC-2-3	73				54					
SDC-.5-3	73	18	18					73	36	18
SDC-7-4					36					
NDC-7-4	91	54	18					73		18
NDC-.5-3		218	18		127			73	36	18
NDC-1-3				18						36
DC-3										
DC-4			18					73	73	
SDC-1-3			18		36					
SDC-7-5							36	109	18	
SDC-2-4			36		18			18		
NDC-7-5		18			54		73	91	18	
DC-5								272		
NDC-2-4							36			
SDC-4-4								18		
DC-6						163				
NDC-4-4						344				



Appendix D, 15 April 1971 continued.

TUBIFICIDAE WITH UNIDENTIFIABLE IMMATURE STAGES ( $\#/m^2$ )

Station	With hair chaetae							W/O hair chaetae	
	<i>Limnodrilus</i>					<i>Pota</i>	<i>Pelo</i>	<i>Tubf</i> <i>tubf</i>	<i>imm.</i>
	<i>hoff</i>	<i>cerv</i>	<i>clap</i>	<i>prof</i>	<i>angs</i>	<i>mold</i>	<i>frey</i>		
NDC-.5-1								91	
SDC-2-1									
SDC-7-1	18							36	
SDC-1-1									
NDC-2-1									
NDC-1-1	54							127	
SDC-.5-1			18					73	
DC-1								54	
NDC-7-1								36	
SDC-1-2									
NDC-2-2							18		
NDC-7-2								163	
NDC-.5-2						36		163	
SDC-7-2	54				36	18		308	
SDC-2-2	36							18	
SDC-.5-2	18				73	18		417	
NDC-1-2	254				163		18	1704	
NDC-.25-1	218			18	73	73	36	979	
SDC-.25-1	18					18		18	
DC-2	199			18		127		1215	36
NDC-7-3	54							127	
SDC-7-3	490	36			54			870	36
NDC-2-3	127			36	54	73		1577	73
SDC-2-3	163				36	36		1015	
SDC-.5-3	54					36		435	
SDC-7-4	36							36	
NDC-7-4	254	91			36	91		1414	36
NDC-.5-3	2067			18		73	36	2230	91
NDC-1-3	145			18		36		798	598
DC-3								73	
DC-4	36					54		1142	18
SDC-1-3	36							91	
SDC-7-5	308				91	36		707	
SDC-2-4								254	
NDC-7-5	254				54			1414	127
DC-5	91			18		54		798	36
NDC-2-4	326					109		1577	199
SDC-4-4	254							816	54
DC-6	508	18				109		1469	145
NDC-4-4	453				73	127		1215	272
								199	344

Appendix D, 15 April 1971 continued.

OLIGOCHAETA IDENTIFIABLE IN ALL STAGES (#/m<sup>2</sup>)

<u>Station</u>	<u>Lumbriculidae</u>	<u>Tubificidae</u>		
	<u><i>Stylodrilus</i></u> <u><i>heringianus</i></u>	<u><i>Potamothrix</i></u> <u><i>vejdovskyi</i></u>	<u><i>Aulodrilus</i></u> <u><i>pluriseta</i></u>	<u><i>Peloscolex</i></u> <u><i>multisetosus</i></u>
NDC-.5-1				
SDC-2-1				
SDC-7-1				
SDC-1-1				
NDC-2-1				
NDC-1-1				
SDC-.5-1				
DC-1	18			
NDC-7-1				
SDC-1-2	18			
NDC-2-2				
NDC-7-2	18			
NDC-.5-2	18			
SDC-7-2				
SDC-2-2				
SDC-.5-2	18			
NDC-1-2				
NDC-.25-1				
SDC-.25-1	18			
DC-2	18			
NDC-7-3	18			
SDC-7-3	471			
NDC-2-3	91			
SDC-2-3				
SDC-.5-3	91			
SDC-7-4				
NDC-7-4	798			
NDC-.5-3	308	109	91	
NDC-1-3	381			
DC-3				
DC-4	1033			18
SDC-1-3	163			
SDC-7-5	4351			
SDC-2-4	2556			
NDC-7-5	2230			54
DC-5	4877	18		
NDC-2-4	3282	18		
SDC-4-4	4605			
DC-6	4605			
NDC-4-4	2194	54	54	

Appendix D, 15 April 1971 continued.

MOLLUSCA (#/m <sup>2</sup> )					
Station	Pelecypoda - Sphaeriidae			Gastropoda	
	<i>Sphaerium</i> <i>striatinum</i>	<i>nitidum</i>	<i>Pisidium</i> spp.	<i>Lymnaea</i> spp.	<i>Valvata</i> sp.
NDC-.5-1			18		
SDC-2-1			36		
SDC-7-1					
SDC-1-1					
NDC-2-1					
NDC-1-1			36		
SDC-.5-1					
DC-1			36		
NDC-7-1					
SDC-1-2					18
NDC-2-2					
NDC-7-2			18		
NDC-.5-2			54		
SDC-7-2			326		
SDC-2-2					
SDC-.5-2	18		127		18
NDC-1-2			508		
NDC-.25-1	54		580		36
SDC-.25-1			36		
DC-2	91	18	761		
NDC-7-3	18		308		
SDC-7-3	18		254		
NDC-2-3	73		381		18
SDC-2-3			326		36
SDC-.5-3	109		925		36
SDC-7-4		18			
NDC-7-4	73	18	308	18	
NDC-.5-3		18	91		
NDC-1-3	18	199	127		
DC-3			616		
DC-4	54	1088	743		163
SDC-1-3		217	163	36	
SDC-7-5	18		344		
SDC-2-4	73	889	2012		36
NDC-7-5		1197	1831	54	73
DC-5	36	454	471		
NDC-2-4		54	870		18
SDC-4-4		73	2194		18
DC-6			2448		
NDC-4-4			870		

Appendix D, 15 April 1971 continued.

CRUSTACEA, HIRUDINEA AND TOTALS, WITH *MYSIS* (#/m<sup>2</sup>)

Station	<i>Pontoporeia affinis</i>	<i>Nephel obscur</i>	<i>Glossi compla</i>	<i>Helobd stagna</i>	Total* Macrozoobenthos	<i>Mysis relicta</i>
NDC-.5-1	54				470	
SDC-2-1					72	
SDC-7-1					54	
SDC-1-1				18	18	
NDC-2-1					54	
NDC-1-1					217	
SDC-.5-1				18	163	
DC-1					144	
NDC-7-1					36	
SDC-1-2					36	
NDC-2-2	18				36	
NDC-7-2					235	
NDC-.5-2	18				543	
SDC-7-2					941	
SDC-2-2					126	
SDC-.5-2					870	
NDC-1-2	18				3082	
NDC-.25-1	181			36	2284	
SDC-.25-1	18				144	
DC-2	199				2989	
NDC-7-3	199				760	
SDC-7-3	36				2501	
NDC-2-3	381			18	3137	
SDC-2-3	417				2156	
SDC-.5-3	399				2321	
SDC-7-4	435		18		579	
NDC-7-4	1360				4842	
NDC-.5-3	381			18	6782	
NDC-1-3	163			18	1957	
DC-3	18				725	
DC-4	2810			54	7359	
SDC-1-3	91				851	
SDC-7-5	399				6417	
SDC-2-4	4986				10878	
NDC-7-5	2901	18	18	127	10606	
DC-5	6581			54	13959	
NDC-2-4	8811			18	15101	
SDC-4-4	2429				10605	36
DC-6	6001				15792	54
NDC-4-4	9935				15808	54

\*Excluding the semi-planktonic organism *Mysis relicta*.

Appendix D continued.

Key to Abbreviations Used for Benthos Species Names  
9 July 1971

AMPHIPODA	<i>Pontopor affinis</i>	<i>Pontoporeia affinis</i>
HIRUDINEA	<i>Helobd stagna</i>	<i>Helobdella stagnalis</i>
	<i>Nephel obscur</i>	<i>Nephelopsis obscura</i>
	Hirud. sp.	Hirudinea species unidentified
MISC. TAXA	Hydra sp.	Species and genus uncertain
	Hydracar sp.	Hydracarina species unidentified
Total Macro		Macrozoobenthos
CHIRONOMIDAE	Tanytars sp.	Tanytarsini genus and species uncertain
	<i>Proclad</i> sp.	<i>Procladius</i> species
	<i>Monodia tuberc</i>	<i>Monodiamesa tuberculata</i>
	<i>Hetrotriss</i> subp	<i>Heterotrissocladius</i> cfr. <i>subpilosus</i>
	" <i>grim</i>	<i>H.</i> cfr. <i>grimshawi</i>
	<i>Psectro simul</i>	<i>Psectrocladius</i> cfr. <i>simulans</i>
	<i>Chironomus</i> fluv	<i>C.</i> <i>fluviatilis</i> -group
	" anth	<i>C.</i> <i>anthracinus</i> -group
	<i>Cryptochir</i> sp. 2	<i>Cryptochironomus</i> species #2 unidentified
	" sp. 3	" species #3 unidentified
	<i>Paracladop ners</i>	<i>Paracladopelma nereis</i>
	" <i>obsc</i>	<i>P.</i> cfr. <i>obscura</i>
	<i>Pchr demj</i>	<i>Parachironomus</i> cfr. <i>demeijerei</i>
	<i>Harn</i> sp.	<i>Harnischia</i> species unidentified
	<i>Plyp scal</i>	<i>Polypedilum</i> cfr. <i>scalaenum</i>
OLIGOCHAETA		
Lumb		Lumbriculidae
	<i>Styl heri</i>	<i>Stylodrilus heringianus</i>
Naididae	<i>Nais pard</i>	<i>N. pardalis</i>
	" sp.	<i>N.</i> species unidentified
	<i>Uncn unci</i>	<i>Uncinaiis uncinata</i>
	<i>Chtg</i> sp.	<i>Chaetogaster</i> species unidentified
	<i>Pris lngs</i>	<i>Pristina longiseta</i>
Tubificidae	<i>Aulodrilus</i> plur	<i>A. pluriseta</i>
	" <i>amer</i>	<i>A. americanus</i>
	<i>Pota vejd</i>	<i>Potamotheix vejdoskyi</i>
	" <i>mold</i>	<i>P. moldaviensis</i>
	<i>Limnodrilus</i> hoff	<i>L. hoffmeisteri</i>
	" <i>angs</i>	<i>L. angustipenis</i>
	" <i>cerv</i>	<i>L. cervix</i>
	" <i>prof</i>	<i>L. profundicola</i>
	" <i>clap</i>	<i>L. claparedeianus</i>
	<i>Pelo frey</i>	<i>Peloscolex freyi</i>
	imm.	immature stages, unidentifiable
W/ hr chaet		With hair chaetae
	imm.	immature stages with hair chaetae, but otherwise unidentifiable
	<i>Tubf tubf</i>	<i>Tubifex tubifex</i>

Appendix D, 9 July 1971 continued.

CHIRONOMIDAE: CHIRONOMINI ( $\#/m^2$ )

Station	<i>Chironomus</i>		<i>Cryptochir</i>		<i>Paracladop</i>		<i>Pchr</i>	<i>Harn</i>	<i>Plyp</i>
	fluv	anth	sp. 2	sp. 3	ners	obsc	demj	sp.	scal
SDC-7-1		18			490	73	91		
SDC-2-1			73		236	73			
NDC-7-1			36		18				
SDC-.5-1			54		181	36	73		
NDC-2-1					163		417		
SDC-1-1		73	127		73	73	54		
NDC-1-1	36	852				18			36
NDC-.5-1	36	308		18	36	18	272		
NDC-7-2	54		109		54				
NDC-.5-2	36		91		18	36			
SDC-2-2	18	36	127			73			91
SDC-.5-2	18	54	36			36			127
SDC-7-2	18	36	36		54		73		
NDC-2-2	73		54				36		
NDC-1-2	417	399	36				36		73
SDC-1-2	399	181	109	18		36			344
DC-2	272	36		36					145
SDC-.25-1	2230		54		18	18			344
NDC-.25-1	471	544	54	18		36			109
NDC-7-3	18		36						18
SDC-7-3	54		54		18				18
NDC-2-3		18				18			
SDC-2-3				18		36			36
SDC-7-4									
DC-3		18							
NDC-.5-3	18	18						18	127
NDC-7-4									18
SDC-.5-3						18			
SDC-1-3									
DC-4									
NDC-1-3		18				36			
SDC-7-5									
SDC-2-4						18			
NDC-7-5						73			
DC-5									
NDC-2-4						36			
SDC-4-4						18			
NDC-4-4									

Appendix D, 9 July 1971 continued.

CHIRONOMIDAE: TANYTARSINI, TANYPODINAE, ORTHOCLADIINAE ( $\#/m^2$ )

<u>Station</u>	<u>Tanytars</u> <u>sp.</u>	<u>Proclad</u> <u>sp.</u>	<u>Monodia</u> <u>tuberc</u>	<u>Hetrotriss</u> <u>subp grim</u>	<u>Psectro</u> <u>simul</u>
SDC-7-1					
SDC-2-1					
NDC-7-1	36				
SDC-.5-1					
NDC-2-1					
SDC-1-1	36	18			36
NDC-1-1	127				
NDC-.5-1					
NDC-7-2					
NDC-.5-2	18				
SDC-2-2					
SDC-.5-2				36	
SDC-7-2				73	
NDC-2-2	36				
NDC-1-2	36				
SDC-1-2	18				
DC-2	18				
SDC-.25-1	36	18			
NDC-.25-1					
NDC-7-3					
SDC-7-3					
NDC-2-3					
SDC-2-3			18		
SDC-7-4			73		
DC-3					
NDC-.5-3		18			
NDC-7-4					
SDC-.5-3					
SDC-1-3					
DC-4					
NDC-1-3		18			
SDC-7-5			73		
SDC-2-4					
NDC-7-5					
DC-5					
NDC-2-4			36		
SDC-4-4					
NDC-4-4				91	

Appendix D, 9 July 1971 continued.

OLIGOCHAETA: TUBIFICIDAE UNIDENTIFIABLE IN IMMATURE STAGE ( $\#/m^2$ )

Station	Without hair chaetae							W/ hr chaet	
	<i>Limnodrilus</i>					<i>Pota</i>	<i>Pelo</i>	<i>Tubf</i>	
	<i>hoff</i>	<i>angs</i>	<i>cerv</i>	<i>prof</i>	<i>clap</i>	<i>mold</i>	<i>frey</i>	<i>imm.</i>	
SDC-7-1	91								
SDC-2-1								18	
NDC-7-1	109							91	
SDC-.5-1									
NDC-2-1								145	
SDC-1-1								127	
NDC-1-1	272					254		290	
NDC-.5-1	54					91		36	
NDC-7-2	471	326				199	326	562	
NDC-.5-2	109	453				399	199	181	
SDC-2-2	743	326				580	326	671	
SDC-.5-2	435	163		36		145	54	508	
SDC-7-2	272	109		54		145	54	471	
NDC-2-2	580	145		36		163	236	417	
NDC-1-2	490	109				91	36	272	36
SDC-1-2	2520	508			91	1233	798	1922	
DC-2	308	181				163	254	218	
SDC-.25-1	689	453				199	888	943	
NDC-.25-1	163					199			
NDC-7-3	36							36	
SDC-7-3	18							54	
NDC-2-3	2121	218		145	36	290	616	471	
SDC-2-3	1541			54		18		109	145
SDC-7-4	8811	399	163	236		471	653	4514	508
DC-3	127		36			36		199	
NDC-.5-3	5874	109	91			290	236	1342	290
NDC-7-4	1052			145		109	91	562	
SDC-.5-3	236			181				290	
SDC-1-3								91	
DC-4	7198		145	145	54	54		3807	145
NDC-1-3	36			36				73	
SDC-7-5	1088		36	145		127		635	
SDC-2-4	1033			163		417		272	36
NDC-7-5	272			18		54	36	218	
DC-5	852					163		761	
NDC-2-4	199					54		163	
SDC-4-4	1215	73				381	181	834	127
NDC-4-4	1215					1070	109	1396	417



Appendix D, 9 July 1871 continued.

OLIGOCHAETA: LUMBRICULIDAE, NAIDIDAE & TUBIFICIDAE  
IDENTIFIABLE IN ALL STAGES (#/m<sup>2</sup>)

Station	Lumb	Naididae				Tubificidae		
	<u>Styl</u> <u>heri</u>	<u>Nais</u> <u>pard</u> sp.	<u>Uncn</u> <u>unci</u>	<u>Chtg</u> <u>sp.</u>	<u>Pris</u> <u>lngs</u>	<u>Aulodrilus</u> <u>plur</u> <u>amer</u>	<u>Pota</u> <u>vejd</u>	
SDC-7-1								
SDC-2-1		36	73	91				
NDC-7-1		54		73				
SDC-.5-1								
NDC-2-1		109						
SDC-1-1		308	218	997				36
NDC-1-1								
NDC-.5-1	36			18				
NDC-7-2								
NDC-.5-2		54						
SDC-2-2		127	453	109	18			
SDC-.5-2				18				
SDC-7-2			163	181				
NDC-2-2			36	36				
NDC-1-2				36				
SDC-1-2	163		36	54				73
DC-2		36	18	73				36
SDC-.25-1			54	36				
NDC-.25-1								
NDC-7-3				73				
SDC-7-3								
NDC-2-3				91				236
SDC-2-3	18			54				73
SDC-7-4	635			417				326
DC-2	36							
NDC-.5-3								562
NDC-7-4	127			36				
SDC-.5-3				163				18
SDC-1-3	163	36	54	127				
DC-4	2973					91	73	145
NDC-1-3	109			36			18	
SDC-7-5	3934			91				
SDC-2-4	2901			218				
NDC-7-5	1124			54				73
DC-5	1686							
NDC-2-4	6364							127
SDC-4-4	5475			18				399
NDC-4-4	3989							290

Appendix D, 9 July 1971 continued.

MOLLUSCA (#/m <sup>2</sup> )							
Station	Pelecypoda - Sphaeriidae			<i>Pisidium</i> spp.	Gastropoda		
	<i>Sphaerium</i> <i>striatinum</i>	<i>nitidum</i>	<i>securis</i>		<i>Bulimus</i> sp.	<i>Lymnaea</i> spp.	<i>Valvata</i> sp.
SDC-7-1							
SDC-2-1				18			
NDC-7-1				18			
SDC-.5-1							
NDC-2-1							
SDC-1-1							
NDC-1-1							
NDC-.5-1							
NDC-7-2	36			18			
NDC-.5-2	127			199			
SDC-2-2	36		18	145			36
SDC-.5-2				218			18
SDC-7-2				36			
NDC-2-2	18			127			
NDC-1-2				290			
SDC-1-2	109			1305		36	
DC-2	54	18	18	417	18		36
SDC-.25-1	199	18		816			18
NDC-.25-1	36			870			18
NDC-7-3				181			
SDC-7-3				199			36
NDC-2-3		18		272			18
SDC-2-3				18			
SDC-7-4		36		925			
DC-3	18						
NDC-.5-3	36	181		743			54
NDC-7-4		127		36			
SDC-.5-3				91			
SDC-1-3		54		236			18
DC-4	18	181		435			254
NDC-1-3		199		181			
SDC-7-5		635		761		18	73
SDC-2-4		580		1541		18	
NDC-7-5		2121		1777		18	73
DC-5		544		3753			145
NDC-2-4		236		2266			18
SDC-4-4		199		2103			73
NDC-4-4		36		3318			

Appendix D, 9 July 1971 continued.

AMPHIPODA, HIRUDINEA, MISCELLANEOUS TAXA, TOTALS AND *MYTIS* (#/m<sup>2</sup>)

Station	Amphipoda	Hirudinea			Hydra sp.	Hydracar sp.	Total* Macro	<i>Mysis relicta</i>
	<i>Pontopor affinis</i>	<i>Helobd stagna</i>	<i>Nephel obscur</i>	Hirud. sp.				
SDC-7-1	18						781	
SDC-2-1	18						636	
NDC-7-1							435	
SDC-.5-1	18						362	
NDC-2-1	36						871	
SDC-1-1							2176	
NDC-1-1							1885	
NDC-.5-1							923	
NDC-7-2	73	18					2246	
NDC-.5-2	199						2119	
SDC-2-2	145	109			18		4205	
SDC-.5-2	199	18					2119	
SDC-7-2	18			18			1811	
NDC-2-2	91						2084	
NDC-1-2	91						2448	
SDC-1-2	1722	18					11675	
DC-2	1523	18					3896	
SDC-.25-1	1886	54					8971	
NDC-.25-1	1378						3896	
NDC-7-3	852						1232	
SDC-7-3	508						959	
NDC-2-3	2466						7052	
SDC-2-3							2138	
SDC-7-4	3227	18					22173	
DC-3	707						1213	
NDC-.5-3	145		18			18	10532	
NDC-7-4	2466	54					4859	
SDC-.5-3	1849						2846	
SDC-1-3	1360						2139	
DC-4	5203	36					21447	
NDC-1-3	2266						3026	
SDC-7-5	2339	18					9973	
SDC-2-4	10570						17767	
NDC-7-5	8303						14214	
DC-5	11132						19163	
NDC-2-4	20686						30058	
SDC-4-4	4351						15574	18
NDC-4-4	10787						23389	54

\*Excluding the semi-planktonic organism *Mysis relicta*.

Appendix D continued.

Key to Abbreviations Used for Benthos Species Names  
8 November 1971

CHIRONOMIDAE

<i>Chironomus fluv</i>	<i>C. fluviatilis</i> -group
<i>C. anth</i>	<i>C. anthracinus</i> -group
<i>Cryptochironomus</i> sp. 2, sp. 3, sp. 4	<i>C. unidentified</i> species #2, #3 and #4
<i>Para ners</i>	<i>Paracladopelma nereis</i>
<i>Proc</i> sp.	<i>Procladius</i> unidentified species
<i>Hetr grim</i>	<i>Heterotrissocladius</i> cfr. <i>grimshawi</i>
<i>Mono tubr</i>	<i>Monodiamesa tuberculata</i>
<i>Pott long</i>	<i>Potthastia</i> cfr. <i>longimana</i>

OLIGOCHAETA

Lumbr	Lumbriculidae
<i>Stylo herin</i>	<i>Stylodrilus heringianus</i>
Naididae	
<i>Pigue michi</i>	<i>Piguetella michiganensis</i>
<i>Uncin uncin</i>	<i>Uncinais uncinata</i>
<i>Ophid serpe</i>	<i>Ophidonais serpentina</i>
Tubificidae	
<i>Aulodrilus plur</i>	<i>A. pluriseta</i>
<i>A. amer</i>	<i>A. americanus</i>
<i>Limno udeke</i>	<i>Limnodrilus udekemianus</i>
<i>Pelos multi</i>	<i>Peloscolex multisetosus</i>
<i>Potam vejdo</i>	<i>Potamothenix vejdoskyi</i>
<i>Limnodrilus hoff</i>	<i>L. hoffmeisteri</i>
<i>L. cerv</i>	<i>L. cervix</i>
<i>L. prof</i>	<i>L. profundicola</i>
<i>L. spir</i>	<i>L. spiralis</i>
<i>Pota mold</i>	<i>Potamothenix moldaviensis</i>
<i>Pelo frey</i>	<i>Peloscolex freyi</i>
imm. (without hair chaetae)	immatures (unidentifiable)
<i>Tubf tubf</i>	<i>Tubifex tubifex</i>
imm. (with hair chaetae)	immatures (unidentifiable)

MOLLUSCA

Pelecypoda - Sphaeriidae	
<i>Sphaerium striat</i>	<i>S. striatinum</i>
<i>S. nitidu</i>	<i>S. nitidum</i>

Appendix D, 8 Nov. 1971 continued.

<u>Station</u>	<i>Chironomus</i>		<i>Cryptochironomus</i>			<i>Para</i>	<i>Proc</i>	<i>Hetr</i>	<i>Mono</i>	<i>Pott</i>
	<u>fluv</u>	<u>anth</u>	<u>sp. 2</u>	<u>sp. 3</u>	<u>sp. 4</u>	<u>ners</u>	<u>sp.</u>	<u>grim</u>	<u>tubr</u>	<u>long</u>
NDC-1-1										
NDC-2-1	18		18							
SDC-4-1	91		18							
NDC-4-1										
NDC-.5-1										
SDC-.5-1	36									
SDC-2-1	435		18	18						
DC-1	54									
SDC-1-1	36									
NDC-2-2	73		163							18
SDC-2-2	91		163							
SDC-4-2	54									
NDC-.5-2			18	18						
SDC-.5-2	145		181						36	
NDC-4-2	145		91							
NDC-1-2	308		73							
NDC-.25-1	254		36							
DC-2	236			18	18	18				18
SDC-.25-1	199		91						36	18
SDC-1-2	54		18							
NDC-2-3	36		18							18
SDC-2-3	54	54	54						73	36
NDC-.5-3	254	1451	36				181		18	18
NDC-4-3	18		36							
SDC-.5-3	435		18						36	18
DC-3	471	18	18						18	18
SDC-4-3	73						36		36	36
DC-4	91	689					562			
SDC-1-3		1599					109	18		
NDC-1-3		127					145			36
SDC-2-4							236		36	
NDC-2-4							18			
DC-5							199		73	
SDC-4-4							36		36	18
DC-6							18			
NDC-4-4								36		

Appendix D, 8 Nov. 1971 continued.

TUBIFICIDAE HAVING UNIDENTIFIABLE IMMATURE STAGE ( $\#/m^2$ )

Station	Without hair chaetae							With hair chaetae	
	<i>Limnodrilus</i>				<i>Pota</i>	<i>Pelo</i>		<i>Tubf</i>	
	<i>hoff</i>	<i>cerv</i>	<i>prof</i>	<i>spir</i>	<i>mold</i>	<i>frey</i>	<i>imm.</i>	<i>tubf</i>	<i>imm.</i>
NDC-1-1									
NDC-2-1							18		
SDC-4-1									
NDC-4-1									
NDC-.5-1							36		
SDC-.5-1							73		
SDC-2-1							36		
DC-1							73		
SDC-1-1							54		
NDC-2-2							127		18
SDC-2-2	18						344		
SDC-4-2							218		
NDC-.5-2				18			145		
SDC-.5-2	36		18				1668		
NDC-4-2							54		
NDC-1-2							127		36
NDC-.25-1	18				18		363		18
DC-2	36			18			1215		18
SDC-.25-1				36			2502		54
SDC-1-2							653		18
NDC-2-3							127		18
SDC-2-3			18	36			1831		36
NDC-.5-3	236	18		54	54	54	15827		3898
NDC-4-3							18		
SDC-.5-3							562		36
DC-3	91		18				1033	18	363
SDC-4-3							2303		
DC-4							7506		290
SDC-1-3						127	6164		399
NDC-1-3	73						3499		36
SDC-2-4							3644		54
NDC-2-4							580		18
DC-5	18						417		
SDC-4-4	36				36	54	979		36
DC-6	18				18	18	1958		598
NDC-4-4	18				54		2012		852

Appendix D, 8 Nov. 1971 continued.

OTHER OLIGOCHAETA (#/m <sup>2</sup> )									
Station	Lumbr	Naididae			Tubificidae				
	Stylo	Pigue	Uncin	Ophid	Aulodrilus	Limno	Pelos	Potam	
	herin	michi	uncin	serpe	plur	amer	udeke	multi	vejdo
NDC-1-1									
NDC-2-1									
SDC-4-1									
NDC-4-1									
NDC-.5-1		18							
SDC-.5-1									
SDC-2-1			36						
DC-1									
SDC-1-1		91			18				
NDC-2-2		163	54						
SDC-2-2		109	36		18				
SDC-4-2									
NDC-.5-2		91	54						
SDC-.5-2		73	91						
NDC-4-2		344							
NDC-1-2		218			18				18
NDC-.25-1		54	18						
DC-2		91	18		18				36
SDC-.25-1		73	18						
SDC-1-2									
NDC-2-3	18	91							
SDC-2-3	236				54				
NDC-.5-3	36				544	54	73		54
NDC-4-3	36	18							
SDC-.5-3	18								
DC-3	18				73				36
SDC-4-3	2357								
DC-4	1886				290				381
SDC-1-3	1577				6037		145		
NDC-1-3	199			18	147		36		145
SDC-2-4	5240						54		127
NDC-2-4	3318								
DC-5	5747								
SDC-4-4	5711				18				435
DC-6	3699						18		
NDC-4-4	3463				18				18

Appendix D, 8 Nov. 1971 continued.

MOLLUSCA (#/m<sup>2</sup>)

Station	Pelecypoda - Sphaeriidae		Gastropoda	
	<i>Sphaerium</i> <i>striat</i>	<i>Pisidium</i> <i>nitidu</i> spp.	<i>Lymnaea</i> spp.	<i>Valvata</i> sp.
NDC-1-1				
NDC-2-1				
SDC-4-1				
NDC-4-1				
NDC-.5-1		18		
SDC-.5-1				
SDC-2-1				
DC-1				
SDC-1-1				
NDC-2-2	18			
SDC-2-2	73		91	54
SDC-4-2			54	73
NDC-.5-2	36		163	18
SDC-.5-2	36	18	54	18
NDC-4-2				
NDC-1-2				73
NDC-.25-1	18	73	254	18
DC-2	18	54	127	109
SDC-.25-1	54		236	36
SDC-1-2			127	
NDC-2-3			127	
SDC-2-3	18		580	18
NDC-.5-3	36	508	2303	73
NDC-4-3				
SDC-.5-3	18	18	91	36
DC-3			54	
SDC-4-3	18	254	834	54
DC-4	73	979	1142	236
SDC-1-3	18	1904	1650	218
NDC-1-3		689	743	18
SDC-2-4		490	1124	36
NDC-2-4		127	725	54
DC-5		254	1015	36
SDC-4-4		54	907	54
DC-6			1251	
NDC-4-4		18	1831	



Appendix D, 8 Nov. 1971 continued.

AMPHIPODA, HIRUDINEA, TOTALS AND *MYSIS*

<u>Station</u>	<u><i>Pontoporeia</i> <i>affinis</i></u>	<u><i>Helobdella</i> <i>stagnalis</i></u>	<u>Total Macrozoobenthos</u>	<u><i>Mysis</i>* <i>relicta</i></u>
NDC-1-1			0	
NDC-2-1			54	
SDC-4-1		18	145	
NDC-4-1			0	
NDC-.5-1	18		90	
SDC-.5-1		18	127	
SDC-2-1		18	561	
DC-1	18		145	
SDC-1-1	18		217	
NDC-2-2	54		851	
SDC-2-2	91	18	1197	
SDC-4-2		18	417	
NDC-.5-2	36	18	615	
SDC-.5-2	109	54	2573	
NDC-4-2	18		652	
NDC-1-2	127		2974	
NDC-.25-1	18	18	1287	
DC-2		18	1975	
SDC-.25-1	308	54	3715	
SDC-1-2			870	
NDC-2-3	290	18	761	
SDC-2-3	508	73	3679	
NDC-.5-3	435	181	26396	
NDC-4-3	363		489	
SDC-.5-3	236		1522	
DC-3			2247	
SDC-4-3	2846	18	9101	
DC-4	218	272	14597	
SDC-1-3	109	580	20795	
NDC-1-3	816	236	7287	
SDC-2-4	3916	36	14975	
NDC-2-4	6962	18	11820	18
DC-5	10733	18	18510	
SDC-4-4	2973	18	11401	
DC-6	8684		16280	36
NDC-4-4	11893		20213	18

\*Not included in Total Macrozoobenthos.



Errata. Aigers, Mozley and Stewart  
GLRD Spec. Rep. ~~44~~ 44 (XIX) <sup>section</sup> A. 7. Spec  
of Benthic Organisms p. 49-67 and App  
D. (p. 163-181).

~~Errata~~

Names of benthic animals.

i - Piguetiella, not Piguetella  
(p. 51, line 22.

p. 59, Table 10.

p. 176, line 18

ii - Parachadopelma Lyles, not. Parachadops  
nereis

(p. 59, Fig. 8. legend).

p. 59, line 26

p. 64, line 32 )

p. 169, line 21

p. 176, line 9

Typographical errors

p. 61, line 10

insert "and" between Lyr  
and Beulimus

p. 64, line 21 "for", not "ofr"

